# SMA NDU
# Panel Discussion

## The United States, China, and Russia: An Innovation Net Assessment

*Part of SMA's "Innovation Now—New Paths Forwards"
Speaker Series*

## Tuesday 18 May 2021
## 1030-1200 EDT

## Join the Event via MS Teams

# Agenda

**Panel Description:** US strategy for global competition and cooperation in innovation cannot be charted without considering innovation in China and Russia, as well as the relationships between these three actors. Here, we bring together world-leading experts to examine each of these three innovators—the US, Russia, and China—and to place them in context. The US faces a global challenge with capable competitors that is both a marathon and a sprint, and US strategy must mitigate its (inevitable) relative weaknesses and harness its (significant) relative strengths.

Our distinguished panelists include:

- **Dr. Robert Atkinson** (President, Information Technology and Innovation Foundation)
- **Dr. Loren Graham** (Professor Emeritus of the History of Science, Massachusetts Institute of Technology & Harvard University)
- **Dr. Walter Hudson** (COL, US Army (Ret.)) (Associate Professor, Eisenhower School, National Defense University; Global Fellow, Wilson Center)
- **Dr. James Mulvenon** (Director, Intelligence Integration, Intelligence Solutions Group)

Our moderator will be **Dr. Nicholas Wright** (Intelligent Biology, Georgetown University Medical Center, University College London, and New America)


**Speaker Series Description:** This is an event in our SMA NDU event series, entitled "Innovation Now—New Paths Forwards."

Strategy is the art of creating power, and technological innovation has been central to creating global economic, political, and military power for at least the past two centuries. But how to foster innovation and translate it into power has differed across times and contexts. During the Cold War—which itself differed from previous epochs—defense industries spearheaded US innovation in key fields like air and space, whilst today civilian sectors dominate innovation in artificial intelligence (AI) or space. During the Cold War the US and Soviet Union both showed remarkable innovation—Sputnik sparked the ARPA's creation—and although for a few decades afterwards the US faced no true peer competitor, now China is transitioning to join the US at the technological frontier. This is the next phase of China's economic development as it transitions from catch-up imitation to innovation. Meanwhile, allies make significant contributions to US innovation, such as the UK-based pioneering AI unit DeepMind bought by Google, whilst Russia has regained its innovative mojo in niche areas, and the European Union (EU) now explicitly seeks "technological sovereignty."

So, what options do the US and its allies have to foster innovation in our contemporary world?

SMA will host a series of events to address this question, in order to help US and allied policymakers understand the challenge and to provide fresh paths forward.

# Speaker Biographies

**Dr. Robert Atkinson (President, Information Technology and Innovation Foundation)**

As founder and president of the Information Technology and Innovation Foundation (ITIF), recognized as the world's top think tank for science and technology policy, Robert D. Atkinson leads a prolific team of policy analysts and fellows that is successfully shaping the debate and setting the agenda on a host of critical issues at the intersection of technological innovation and public policy.

He is an internationally recognized scholar and a widely published author whom *The New Republic* has named one of the "three most important thinkers about innovation," *Washingtonian Magazine* has called a "tech titan," *Government Technology Magazine* has judged to be one of the 25 top "doers, dreamers and drivers of information technology," and the Wharton Business School has given the "Wharton Infosys Business Transformation Award."

A sought-after speaker and valued adviser to policymakers around the world, Atkinson's books include *Big is Beautiful: Debunking the Mythology of Small Business* (MIT Press, 2018); *Innovation Economics: The Race for Global Advantage* (Yale, 2012), *Supply-Side Follies: Why Conservative Economics Fails, Liberal Economics Falters, and Innovation Economics is the Answer* (Rowman & Littlefield, 2006), and *The Past And Future Of America's Economy: Long Waves Of Innovation That Power Cycles Of Growth* (Edward Elgar, 2005). He also has conducted groundbreaking research projects and authored hundreds of articles and reports on technology and innovation-related topics ranging from tax policy to advanced manufacturing, productivity, and global competitiveness. He has testified before the United States Congress more than 30 times.

President Clinton appointed Atkinson to the Commission on Workers, Communities, and Economic Change in the New Economy; the Bush administration appointed him chair of the congressionally created National Surface Transportation Infrastructure Financing Commission; the Obama administration appointed him to the National Innovation and Competitiveness Strategy Advisory Board; and the Trump administration appointed him to the G7 Global Partnership on Artificial Intelligence. Atkinson serves on the UK government's Place Advisory Group to advise the Minister for Science, Research and Innovation on how policy can drive innovation in more regions. He is a founding member of the Polaris Council, a body of cross-sectoral, interdisciplinary science and technology policy experts who advise the U.S. Government Accountability Office's Science, Technology Assessment, and Analytics (STAA) team on emergent and emerging issues facing the Congress and the nation. He also has served as co-chair of the White House Office of Science and Technology Policy's China-U.S. Innovation Policy Experts Group; as a member of the U.S. Department of Commerce's National Advisory Council on Innovation and Entrepreneurship; and on the U.S. State Department's Advisory Committee on International Communications and Information.

Atkinson is a member of the Markle Foundation Task Force on National Security in the Information Age and serves on the boards or advisory councils of the Internet Education Foundation, the NetChoice Coalition, the University of Oregon's Institute for Policy Research and Innovation, and the State Science and Technology Institute. Additionally, Atkinson is on the editorial boards of the *Journal of Electronic Government* and the *Journal of Internet Policy*; a member of the Global Innovation Forum Brain Trust; a nonresident senior fellow at the Brookings Institution; a fellow at the Columbia University Institute of Tele-Information; a fellow of Glocom, a Tokyo-based research institute; and a member of the Polaris Council, an advisory group to the U.S. Government Accountability Office's Science, Technology Assessment, and Analytics team.

Atkinson was previously vice president of the Progressive Policy Institute, where he directed the Technology & New Economy Project. He wrote numerous research reports on technology and innovation policy, covering issues such as broadband telecommunications, e-commerce, e-government, privacy, copyright, R&D tax policy, offshoring, and innovation economics. Previously, Atkinson served as the first executive director of the Rhode Island Economic Policy Council (RIEPC), a public-private partnership whose members included the state's governor, legislative leaders, and both corporate and labor leaders. As head of RIEPC, Atkinson was responsible for drafting a comprehensive economic development strategy for the state and working with the legislature and executive branch of government to successfully implement each element of a 10-point action agenda.

Prior to his service in Rhode Island, Atkinson was a project director at the Congressional Office of Technology Assessment, where, among other projects, he spearheaded *The Technological Reshaping of Metropolitan America*, a seminal report examining the impact of the information technology revolution on America's urban areas.

As a respected policy expert and commentator, Atkinson has testified numerous times before the U.S. Senate and House of Representatives, and he appears frequently on news and public affairs programs. Among others, these appearances have included interviews on BBC, CNBC, CNN, Fox News, MSNBC, NPR, and NBC Nightly News.

Atkinson holds a Ph.D. in city and regional planning from the University of North Carolina, Chapel Hill, where he was awarded the prestigious Joseph E. Pogue Fellowship. He earned his master's degree in urban and regional planning from the University of Oregon, which named him a distinguished alumnus in 2014.

**Dr. Loren Graham (Professor Emeritus of the History of Science, Massachusetts Institute of Technology & Harvard University)**

Professor of the History of Science (STS) Loren Graham received his B.S. from Purdue University (Chemical Engineering, 1955) and his Ph.D. from Columbia University (History, 1964). He was Professor of History at Columbia University from 1972 to 1978, when he became Professor of the History of Science at MIT. He has received Woodrow Wilson, Danforth, Guggenheim, and Rockefeller Fellowships.

Professor Graham is a member of the American Philosophical Society, the American Academy of Arts and Sciences, and the Executive Committee of the Davis Center for Russian and Central Eurasian Studies at Harvard University. He is also a foreign member of the Russian Academy of Natural Science. Graham's research focuses on the history of science in Russia and the Soviet Union in the 19th and 20th centuries.

He is the author of numerous books, including Science in Russia and the Soviet Union (1993), The Ghost of the Executed Engineer: Technology and the Fall of the Soviet Union (1993), What We Have Learned About Science and Technology from the Russian Experience (1998), A Face in the Rock: The Tale of a Grand Island Chippewa (1998), a historical novel currently being made into a film, Moscow Stories (2006), Science in the New Russia (with Irina Dezhina) (2008), and Naming Infinity: A True Story of Religious Mysticism and Mathematical Creativity (with Jean-Michel Kantor) (2009).
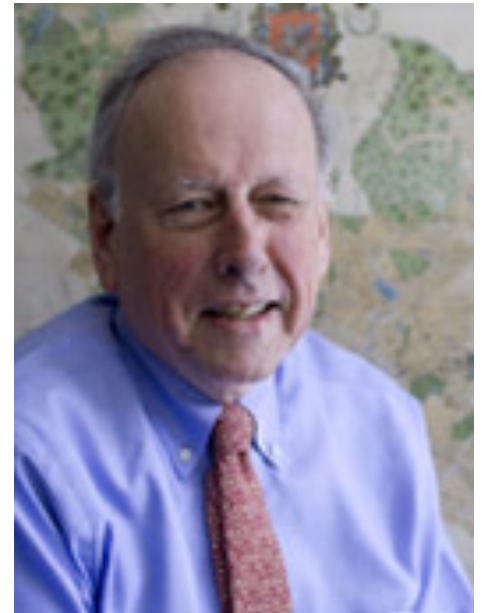
**Dr. Walter Hudson (COL, US Army (Ret.)) (Associate Professor, Eisenhower School, National Defense University; Global Fellow, Wilson Center)**

Walt Hudson, J.D., Phd., is a Global Wilson Fellow and is currently an associate professor at the Eisenhower School of National Security and Resource Strategy, where he teaches courses in strategy, strategic leadership, geoeconomic policy and other topics. He is a retired Army colonel and is the author of the book *Army Diplomacy* (2015) which focuses on post-World War II occupation policy. He has also written widely in various journals such as *The American Interest, Joint Forces Quarterly, Military Review, Military Law Review,* and *Prism*.

**Dr. James Mulvenon (Director, Intelligence Integration, Intelligence Solutions Group)**

James Mulvenon is Director of Intelligence Integration for SOSi's Intelligence Solutions Group, where he has recruited and trained a team of nearly fifty Chinese, Russian, Korean, Arabic, Farsi, Dari, Pashto, and Urdu linguist-analysts performing research and analysis for US Government and corporate customers. A Chinese linguist by training, he is a leading international expert on Chinese cyber, technology transfer, espionage, and military issues. Dr. Mulvenon received his B.A. in China Studies from the University of Michigan, studied Communist Party History at Fudan University in Shanghai, and received his Ph.D. in political science from the University of California, Los Angeles. His dissertation, published by ME Sharpe in 2001 under the title *Soldiers of Fortune*, details the rise and fall of the Chinese military's international business empire. In 2013 he co-authored *Chinese Industrial Espionage*, which is the first full account of the complete range of China's efforts to illicitly acquire foreign technology.

**Dr. Nicholas Wright (Intelligent Biology, Georgetown University, UCL, and New America)**

Dr. Nicholas Wright is an affiliated scholar at Georgetown University, Honorary Senior Research Fellow at University College London (UCL), Consultant at Intelligent Biology and Fellow at New America. His work combines neuroscientific, behavioural and technological insights to understand decision-making in politics and international confrontations, in ways practically useful for policy. He leads international, interdisciplinary projects with collaborators in countries including China, the U.S., Iran and the UK. He was an Associate in the Nuclear Policy Program, Carnegie Endowment for International Peace, Washington DC and a Senior Research Fellow in International Relations at the University of Birmingham, UK. He has conducted work for the UK Government and U.S. Department of Defense. Before this he examined decision-making using functional brain imaging at UCL and in the Department of Government at the London School of Economics. He was a clinical neurologist in Oxford and at the National Hospital for Neurology. He has published academically (some twenty publications, e.g. Proceedings of the Royal Society), in general publications such as the Atlantic and Foreign Affairs, with the Pentagon Joint Staff (see www.intelligentbiology.co.uk) and has appeared on the BBC and CNN.  Wright received a medical degree from UCL, a BSc in Health Policy from Imperial College London, has Membership of the Royal College of Physicians (UK), has an MSc in Neuroscience and a PhD in Neuroscience both from UCL.