

---

Centre for International  
Governance Innovation

Conference Report – Virtual Workshop, December 4, 2023

# Digital Governance: Technology Tensions with China and Implications

Alex He and Robert Fay





Conference Report – Virtual Workshop, December 4, 2023

# Digital Governance Technology Tensions with China and Implications

Alex He and Robert Fay

---

## About CIGI

The Centre for International Governance Innovation (CIGI) is an independent, non-partisan think tank whose peer-reviewed research and trusted analysis influence policy makers to innovate. Our global network of multidisciplinary researchers and strategic partnerships provide policy solutions for the digital era with one goal: to improve people's lives everywhere. Headquartered in Waterloo, Canada, CIGI has received support from the Government of Canada, the Government of Ontario and founder Jim Balsillie.

---

## À propos du CIGI

Le Centre pour l'innovation dans la gouvernance internationale (CIGI) est un groupe de réflexion indépendant et non partisan dont les recherches évaluées par des pairs et les analyses fiables incitent les décideurs à innover. Grâce à son réseau mondial de chercheurs pluridisciplinaires et de partenariats stratégiques, le CIGI offre des solutions politiques adaptées à l'ère numérique dans le seul but d'améliorer la vie des gens du monde entier. Le CIGI, dont le siège se trouve à Waterloo, au Canada, bénéficie du soutien du gouvernement du Canada, du gouvernement de l'Ontario et de son fondateur, Jim Balsillie.

---

## Credits

Managing Director of Digital Economy (until February 2024) **Robert Fay**  
Director, Program Management **Dianna English**  
Program Manager **Jenny Thiel**  
Publications Editor **Susan Bubak**  
Graphic Designer **Abhilasha Dewan**

Copyright © 2024 by the Centre for International Governance Innovation

The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the Centre for International Governance Innovation its Board of Directors.



The text of this work is licensed under CC BY 4.0. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

For reuse or distribution, please include this copyright notice. This work may contain content (including but not limited to graphics, charts and photographs) used or reproduced under licence or with permission from third parties. Permission to reproduce this content must be obtained from third parties directly.

For publication enquiries, please contact [publications@cigionline.org](mailto:publications@cigionline.org).

Centre for International Governance Innovation and CIGI are registered trademarks.

---

## Centre for International Governance Innovation

67 Erb Street West  
Waterloo, ON, Canada N2L 6C2  
[www.cigionline.org](http://www.cigionline.org)

---

# Table of Contents

vi	About the Authors
1	Executive Summary
1	Introduction
2	What Does China's Governance Model in the Digital Age Mean to the World?
3	How Has the West Responded to China's Governance Model in the Digital Age?
4	Uncertainties and Risks of US-Coordinated Technology Sanctions on China
6	How Has China Responded So Far?
7	Conclusion
8	Agenda
9	Participants

---

## About the Authors

**Xingqiang (Alex) He** is a CIGI senior fellow. Alex is an expert on digital governance in China, the Group of Twenty (G20), China and global economic governance, domestic politics in China and their role in China's foreign economic policy making, and Canada-China economic relations.

Prior to joining CIGI in 2014, Alex was a senior fellow and associate professor in the Institute of American Studies at the Chinese Academy of Social Sciences (CASS) and a visiting scholar in the Paul H. Nitze School of Advanced International Studies at Johns Hopkins University in Washington, DC (2009–2010). Alex was also a guest research fellow at the Research Center for Development Strategies of Macau (2008–2009) and a visiting Ph.D. student at the Centre of American Studies at the University of Hong Kong (2004).

Alex is the author of *The Dragon's Footprints: China in the Global Economic Governance System under the G20 Framework*, published in English (CIGI Press, 2016) and Chinese editions, and co-author of *A History of China-U.S. Relations* (Chinese Social Sciences Press, 2009). Alex has published dozens of academic papers, book chapters, and newspaper and magazine articles.

Alex has a Ph.D. in international politics from the Graduate School of CASS and previously taught at Yuxi Normal University in Yunnan Province, China. Alex is fluent in Chinese and English.

**Robert (Bob) Fay** is a highly accomplished and respected leader in the field of digital economy research. With more than 30 years of experience working in the public and private sectors, he has developed expertise in economics, policy analysis and strategic planning.

Bob served as managing director of digital economy at CIGI, where he led a network of researchers focused on the intersection of technology, trade, innovation and governance. In this position, he has played a key role in shaping the discourse around the digital economy and has contributed to numerous policy debates and research initiatives on topics such as data governance, digital innovation and the future of work.

Before joining CIGI, Bob held various leadership positions at the Bank of Canada (BoC), where

he was responsible for the assessment of digital technologies for Canada's economy and international economic developments, and provided short-term forecasting, structural analysis and policy advice. He was also special assistant to BoC Governor Mark Carney and his chief of staff, playing a key role in delivering policy direction. Bob began his career as an economist at the Organisation for Economic Co-operation and Development, where he worked on labour market issues and country-specific analyses.

Bob holds an M.A. in economics from Queen's University and has published numerous research papers and policy briefs on a range of economic and policy topics.

---

## Executive Summary

The Centre for International Governance Innovation's (CIGI's) second annual conference on Digital Governance in China revealed diverse perspectives on the global implications of China's governance model in the digital age. Some see this model as China's attempt to continue its economic development and transition from a developing to a developed economy by moving up the value chain through semiconductor development and advanced manufacturing and by capturing the value of the data economy through innovation. In this sense, the implications are benign. Others see China more nefariously as it employs an authoritarian, top-down governance model to capture data and develop tools and technologies that can pose cyber- and national security threats and be used to undermine democracy. More generally, there has been a rise in the securitization of policy (that is, looking at issues through a national security lens). At the same time, there is a realization that China is a superpower that is heavily integrated in global supply chains, and how to deal with these concerns around interconnectedness is not obvious. Against this background, a technology competition has resulted — a competition over the control of data and the technologies that use the data, and a competition over the values upon which they should be used — with stark differences between China and the United States but also Europe.

The United States has strengthened its sanctions against China, with an emphasis on technology export controls; restrictions on investment in technologies, particularly semiconductors; and financial sanctions in crucial technologies including artificial intelligence (AI) and advanced chips development. Europe's focus is on strategic technological containment of China while reducing dependencies for advanced semiconductors, AI, quantum technologies and biotechnology, and avoiding direct contributions to undesirable end users in China. Canada is a statistically big target of cyberattacks and needs to look at how this great power competition is playing out and how it can position itself domestically with cybersecurity practices. In recent years, Canada has strengthened its cybersecurity resilience and capacity to protect its digital infrastructure and national security.

There exist many uncertainties and risks associated with the ongoing US technology sanctions and controls on China. These include implementation risks, pressure and uncertainties brought by market competition, and coordination difficulties with US global allies. In practice, sanctions are a moving target — becoming both more focused and far-ranging — and they are challenging to monitor. Some sanctions in the form of semiconductor chip bans are not working well, and it is impossible for the United States to control every chip that American companies sell. It is not clear at this point whether these export restrictions are having a substantive impact on China's semiconductor sector development. The impact may be yet to come and, in response, China has taken actions, including introducing a slew of regulatory countermeasures, pouring huge sums of money into investment to boost breakthroughs in key “choke-point” technologies, and buffering its domestic innovation ecosystem to develop its own “core” or “frontier” technologies.

Exploring the implications of China's governance model on the world is increasingly resembling touching an elephant in the dark — each viewpoint sees only part of the truth — in the context of the country's lockdown policies during the COVID-19 pandemic and the following trend of securitization policies discouraging foreign investors and tourists in the post-pandemic era. Conference participants noted the value of diverse perspectives on China's governance model in the digital age and how the West should and could deal with it, as discussed in this report. The global implications of China's governance model in the digital era are highly mixed and complicated, and worthy of further thought and debate.

---

## Introduction

What are the implications of China's governance model in the digital age for other countries, particularly those in the West? How has the West responded and, in turn, how has China reacted? These are key questions that were addressed by speakers and participants at CIGI's second annual workshop on Digital Governance in China, held virtually on December 4, 2023. The conference report summarizes the speakers' discussions on

these topics from the viewpoints of strategy, US-China technology competition in cybersecurity and AI, the US-led technology export controls targeting China, and China's efforts to move up supply chains and ascend the technology ladder, as well as its responses to the technology export controls. The conference gathered a variety of opinions on these issues from experts in Canada, Europe and the United States.

---

## What Does China's Governance Model in the Digital Age Mean to the World?

Data is the key to economic growth. It drives innovation, facilitates automation, feeds the development of AI, and fuels the new computational engines of the digital era that are analogous to the combustion engines that powered the industrial age. The data-driven economy is moving global competition onto a new playing field, which is multipolar, with the two largest players — the United States and China — dominating, and middle powers such as Japan, Germany, Britain, Canada and Australia developing their own strategies in response to these two players.

The geopolitical implications of China's economic strategy and digital governance model can be viewed from diverse perspectives. Looking at China's manufacturing capacity, some believe the country's strategy is based on moving up the value chain by expanding its digital prowess internally while maintaining strong trade links globally but with a shift away from the Global North to the Global South. In this view, China is merely an upper-middle-income economy on the cusp of becoming a developed economy. At the same time, China still lags far behind the West in terms of per capita GDP, but it wants to continue to catch up and can only move up the value chain in the data-driven economy by becoming more competitive with the West. Nevertheless, from an innovation standpoint, China would be perhaps better served by having greater technological diffusion within its macroeconomy and society

than by focusing obsessively on scaling the commanding heights of core technologies. China's strategies have geopolitical implications, for example, as seen in its Belt and Road Initiative, as it attempts to build infrastructure to supply goods and services to new markets.

Others, however, view with suspicion China's digital governance as an attempt to export authoritarianism, creating a battle of ideas between free and open market-based democracies and authoritarian, top-down governments. China's strategy is "winning without fighting." Specifically, the strategy is practised through a variety of ways, including economic pressure, political intervention, publicity at the information front, "wolf warriors" at the diplomatic front, defamation lawsuits at the legal front and "preparing for war" at the military front.

Some acknowledge that China is a formidable power in the digital age, focused on the acquisition and protection of data. China has taken concerted actions to acquire data globally, including by collecting intellectual property (IP) for commercial use from Western defence, industrial or research organizations, and by collecting and harvesting data, for example, through the US Office of Personnel Management and Equifax, to exploit millions of records. With plenty of tools at its disposal, China is positioning them in infrastructure that could be used in the event of a future conflict, giving it operational advantages.

The huge scale of China's economy means there is no other country that can play the role that it has played in the rest of the world. China is a major trading partner of virtually all countries and deeply integrated in the global economy. Largely because of the scale of its economy and its interconnectedness, China is far beyond anything the United States has ever tried to take on with sanctions. That is likely one reason why the United States has not implemented a massive sanctions regime against China and only targeted certain goods and sectors.

China simply does not work according to the West's expectations, and it will continue to forge its own future path. China's growth trajectory should not be compared to that of countries such as Japan, South Korea, Taiwan and others in the past. In this digital era, there is not only economic competition but also the overlying influence of national security. Economic competition over the



commanding heights of the future economy is an important side of national security. This perspective partly explains why China is continuously moving up the value chain and becoming more competitive in the data-driven economy.

---

## How Has the West Responded to China's Governance Model in the Digital Age?

Looking through the lens of US-China relations over the past decade, it is obvious that technology and technology competition have become the centre of US-China relations and have driven the US response to China's digital governance model. More than a decade ago, specifically in 2009–2010, cybersecurity and related technology and IP issues were in the spotlight of US-China relations. The US companies operating in China were infiltrated by China's cyber operations — a form of industrial espionage. It was the first time the cybersecurity issue was brought to the forefront and in a very public way.

Today, the centre of technology competition has evolved from competing cyber operations to AI, which means that AI companies, including those that produce drones and surveillance technology, are all subject to policy actions. This affects AI applications; data collection; government access to data; AI as an enabler for industrial sectors, economic growth and technological advancement; and AI hardware, which includes advanced graphics processing units that are now subject to export controls.

The policy tools being wielded in technology competition are becoming much more complex. Currently, US policy actions involve deeply technical export controls, which require a high level of technical understanding of how global supply chains work — and how that technology works — which is a challenge for policy makers.

The United States has tried to use a variety of mechanisms to deny technology transfers to China. In addition to export controls, financial sanctions and investment restrictions have also

been applied. Most recently, export controls have been enhanced to try to prevent semiconductors from getting into China and to prevent China from getting the type of knowledge it needs to produce advanced technology. Over the past few years, foreign investment in the United States has been carefully scrutinized, and the United States has been pressuring its allies to do the same to prevent China from getting technological know-how from US companies via mergers and acquisitions (M&A) or through direct investments. The Committee on Foreign Investment in the United States (CFIUS) is the agency responsible for the protection of national security from inbound investment to the United States.

The latest development is an outward-bound investment mechanism. In August 2023, President Joe Biden's administration issued an executive order that essentially targets firms and entities that are associated with the People's Liberation Army (PLA) in China. The executive order tries to prevent investment in specific sectors. The idea is to complement export controls to stop the financing of these types of technologies. The order is aimed at stopping the trade of finance rather than the trade of products.

Aside from the wielding of weapons of technological sanction, the most important shift in strategy over the past decade has been an acknowledgement on the US side that in order to win the competition, it requires not only strong foreign policy but also strong domestic policy. With the passage of the CHIPS and Science Act, the Inflation Reduction Act and the bipartisan infrastructure law, the US administration has started taking significant and historic steps, building its modern industrial strategy to compete with strategic rivals.

The United States has also made concerted efforts to bring allies and partners, including Canada, into the fold as part of this competition strategy. Washington has applied unilateral pressure on its allies and industrial partners abroad to align with US controls on China. At the same time, there is a tendency to succumb to lobbying by US industry. This tension has been a big topic of discussion when it comes to the European debate on Chinese technology and de-risking.

The European Commission (EC) in summer 2023 issued an economic security strategy that features three pillars: protect, promote and partner. One

piece of this strategy is a risk assessment for 10 critical technology areas that examines risks to the resilience of supply chains and critical infrastructure, as well as risks related to technology or technology leakage, and the risk that some countries — in particular China — may weaponize dependencies or engage in economic coercion. The EC is working jointly with member states to assess one specific area, namely, technology security for advanced semiconductors, AI, quantum technologies and biotechnology.

The risk assessment by the EC and member states emphasized that the European Union should reduce critical dependencies and vulnerabilities by de-risking and diversifying, but this does not mean decoupling. Instead, the aim is to examine the role of strategic export controls versus whether new instruments, such as restrictions on outbound investments, would be necessary or appropriate for Europe to implement.

Although there is broad agreement within the United States that China's technological ambitions pose national security, human rights and economic security risks, there is a major qualitative difference. Europe is less interested in a strategy of technological containment of China; rather, it would prefer to reduce strategic dependencies and avoid direct contributions to undesirable end-users in China such as the PLA. This is the starting point, which is a bit different from how the Biden administration is thinking through export controls and their function.

From the Canadian perspective and seen through a domestic lens, Canada needs to look at how this great-power competition is playing out in the digital age and how to position itself with the domestic cybersecurity practices that will help build resilience. With its population and companies being ardent adopters of technology and participating globally, Canada is a statistically big target of cyberattacks. Canada's infrastructure is spread across a vast territory that requires extensive remote connections in rural areas to keep it running; this infrastructure is also connected across the US border in many ways.

Canada must pay attention to what probably amounts to a more strategic threat from state actors targeting its infrastructure, whether for espionage purposes or to mine data to support other aims (for example, by disrupting information and services in the country). Canada's focus is to prioritize at

home and increase its cyber- and national security resilience in the belief that the best defence is having a good defence. Internationally, Canada is increasingly focused on intelligence threat sharing.

---

## Uncertainties and Risks of US-Coordinated Technology Sanctions on China

There are different risks and uncertainties that arise from the US-led tech export control regimes; the first is about implementation. Export control regimes are not perfect, and there are loopholes: Chinese companies will find ways to use workarounds. In terms of advanced semiconductor manufacturing, the Semiconductor Manufacturing International Corporation has managed to make the chip for Huawei's Mate 60 Pro smartphone using the latest seven-nanometre technology node thanks to technical loopholes and generous licensing, as well as China's equipment stockpiling before sanctions take effect.

Technological sanctions are a moving target and becoming more precise and far-ranging. Some of the sanctions are not working well, and it is very challenging to monitor them since there are not enough Americans on the ground to do so in China. It is also impossible to control every single chip that US companies sell. So far, less than one percent of all semiconductors in China are subject to US controls, according to estimates from Yale Group.

Implementation risk is even bigger in terms of outward-bound investment controls. The executive order issued by the Biden administration tried to limit outward-bound investment of high-end semiconductors, AI and quantum computing. This order goes against almost everything the United States has ever considered in terms of its investment history. In the case of inward-bound investment controls, the CFIUS-centred government structure is designed to assess whether an inbound investment from a country poses a national security risk. If so, a government investigation will be initiated to assess whether the investment is, in fact, a national security risk. But for outward-

bound investment controls, it is not clear how they should be implemented. After all, Americans are free to invest in anything they feel like investing in — whether it is a sound investment or outside of investor protection, fraud or something similar is their problem, not the government's.

On outward-bound investment control, private sector entities essentially have to figure out themselves what national security risks could arise with their investment and self-report and self-deny on the prohibition. This becomes a compliance regime where the government is essentially an auditor of what is happening. Plus, the vague definition of national security and the somewhat attenuated nexus to national security could even create some implementation risk.

A related consequence of outward-bound investment control is the expansion risk. There are concerns that the investment control would go beyond those three sectors (high-end semiconductors, AI and quantum computing) and into other sectors. When trying to prohibit certain sectors, the government is acting as an evaluator or an auditor. As such, the government needs to act in a much more forceful manner, which creates a resource issue.

Second are uncertainties and risks of securing international cooperation on technical controls. An export control regime cannot work effectively if the United States acts alone. That is why the United States worked so hard to get the Netherlands and Japan on board when it placed export controls on semiconductors. Otherwise, the United States was basically opening itself up for competitors to take its place. The same thing could happen with respect to foreign direct investment. For example, suppose a US company was going to make a direct investment in China. If the US government denies that financing, it could go to another company in Europe, Japan, Australia or elsewhere.

In the semiconductor sector in particular, cooperation from companies in the Netherlands, Japan, Taiwan and South Korea has been very important as these companies, which include Advanced Semiconductor Materials Lithography (ASML), Taiwan Semiconductor Manufacturing Company (TSMC) and Samsung, control crucial technologies in advanced chip manufacturing equipment and materials. For example, the most advanced lithography machines made by ASML — extreme ultraviolet machines — and TSMC and

Samsung's 5 nm and below lithography process for advanced chip fabrication, have high barriers to entry and are a real choke point for China.

Third are uncertainties and risks brought by technological sanctions on the global market and value chain, including for US firms where US sanctions are damaging their market share in China. Substantial revenues of many American semiconductor companies come from China, and these companies are resisting US sanctions for obvious reasons. With respect to the percentage of global revenues received from China in 2022, US semiconductor companies earned from 30 percent to more than 60 percent of their revenue from China, with Qualcomm at about 64 percent, Monolithic Power Systems at 51 percent, Texas Instruments at 48 percent, Western Digital at 44 percent, Broadcom Inc. at 34 percent and Lam Research at 31 percent. Other companies, such as Intel, also have a healthy revenue from China, while the revenue from China for others, such as Broadcom, is going up. Over the period 2018–2022, revenue from China to electronic design automation companies Synopsys and Cadence grew by 16 percent and 14.6 percent, respectively. They monopolize the chip design market, and most of the chip design companies in China are very dependent on these companies.

More generally, China bought more than 50 percent of the world's chips. The Chinese market accounts for 30 percent of the income for most of these Western companies, and the supply chain between American semiconductor companies and other companies in China is very dense, with many of them also American companies. These are not just key, well-known companies but also many small companies that are living off the involvement of bigger US companies in China. At this point, it is not clear that these export restrictions are having a substantive impact on them; it may be yet to come. The full implications will likely arise over the longer term.

---

## How Has China Responded So Far?

China, as an upper-middle-income economy on the cusp of becoming a developed economy, is already a technology overachiever. Yet from an innovation standpoint, China would be perhaps better served by having greater technological diffusion within its macroeconomy and society than by focusing obsessively on scaling the commanding heights of core technologies. Before the United States imposed technology export controls, the key feature of China's development strategy had been dependence on market mechanisms to capture an ever-larger share of the value chain, and value-added products and services, thereby ascending the technology ladder as well as catalyzing global and regional supply chain dependencies on China.

Another strategy has been to acquire core or breakthrough technologies overseas via the M&A route, which started in the early to mid-2010s, but it backfired spectacularly before the US export controls began in 2022. This aspect of China's strategy drew revulsion and a stinging response from the West, starting with upgrading the CFIUS process to deny even minority acquisitions in technologically vital industries.

Following the imposition of US export controls, this market-led strategy continues to persist. But grafted onto this strategy is the introduction of a slew of regulatory countermeasures, such as the Anti-Foreign Sanctions Law, the Unreliable Entity List, the new export control law and implementation rules, and so forth, which are intended to leverage China's market power, both as a producer and a consumer of sophisticated goods to deter external attempts to decouple market-based supply chains. Upon its failure, China could take measures to incentivize or coerce (via the export controls route) local production of high/highest value-added elements on Chinese soil, or greenlight the overseas production of goods embodying these technologies on condition that production is carried out by Chinese subsidiaries that retain effective control over these technologies.

In essence, retaining global and regional supply chain dependencies on China or Chinese entities remains the strategy, but with a revised tool kit of sticks and carrots that introduce the discretionary

hand of the state to nudge the workings of the market mechanism in China's favour.

Following the imposition of US export controls that have backed China into a corner, China has revised its strategy with a two-fold approach.

First, in the short to medium term, China plans to pour huge sums of money into developing breakthroughs in key chokepoint technologies. The \$41-billion third tranche of the "Big Fund" to develop home-grown alternatives for lithography and process control equipment is emblematic of this urgency. Chokepoint technologies should not be construed as only related to semiconductor fabrication; rather, they extend across a range of industrial applications.

Second, and in the longer term, China will buffer its domestic innovation ecosystem so that the country is capable of developing its own "core" or "frontier" technologies. A key strategic focus here is to confront and overcome the main structural bottlenecks to innovation domestically, establishing a "whole-nation innovation system" to address the state's weak investment in basic research, the lack of research and development spending by large Chinese companies as well as the absence of backward linkages between Chinese industry and academia/public research.

China now faces a perfect storm. In addition to dealing with these external pressures from the United States and other allies and partners, Beijing is starting to encounter immense internal political economic pressures that will ultimately impact the way it strategizes and moves forward in technology competition. China is facing the first decline in its working age population in decades, which will have profound implications for its technological and economic development. The country is also experiencing very strong economic headwinds with the crash of its real estate markets. All of these economic pressures will start to push as China makes strategic trade-offs on where it invests time, effort and money when it comes to emerging technologies.

---

## Conclusion

Examining the implications of China's governance model on the world is much like touching an elephant in a dark room as the effects of the country's lockdown policies during the COVID-19 pandemic and subsequent trend of securitization policies discourage foreign investors and tourists in the post-pandemic era. It is therefore valuable to get diverse perspectives on China's governance model in the digital age and how the West could and should deal with it. This workshop indicates that the implications of China's digital governance model are highly mixed and complicated, and worth further discussion, given the massive scale of the country's economy and the degree of its interlinkages with the global economy, as well as its distinct political economy system. This analysis has led to a plethora of responses that also need to be continuously evaluated.

---

# Agenda

December 4, 2023

- 9:00 a.m.–9:10 a.m.      **Welcome and Introduction**
- **Paul Samson**, President, CIGI
- 9:10 a.m.–9:30 a.m.      **Keynote Remarks on US-China Relations: New Type Containment**
- **David R. Stilwell**, United States Assistant Secretary of State, Bureau of East Asian and Pacific Affairs (2019–2021)
- 9:30 a.m.–10:25 a.m.      **Panel 1: Emerging Technologies and Cybersecurity in US-China-Canada Trilateral Relations**
- **Moderator: Rohinton P. Medhora**, CIGI Distinguished Fellow; Professor of Practice, Institute for the Study of International Development, McGill University
  - **Framing the US-China Tech Competition**
    - **David Lin**, Senior Director for Platforms, Special Competitive Studies Project
  - **Canada’s National Cyber Resilience**
    - **Shelly Bruce**, CIGI Distinguished Fellow; Former Chief (Deputy Minister), Communications Security Establishment
  - **Chinese Strategy in the Data Economy**
    - **Daniel Araya**, CIGI Senior Fellow
- 10:25 a.m.–10:30 a.m.      **Health Break**
- 10:30 a.m.–11:25 a.m.      **Panel 2: The US-Led Tech Export Control and China’s Tech Self-Reliance and Innovation**
- **Moderator: Robert Fay**, Managing Director of Digital Economy Research, CIGI (until February 2024)
  - **US Export Controls on Technology to China: An Insider’s View**
    - **Clay Lowery**, Executive Vice President for Research and Policy, Institute of International Finance
  - **US Ban on Chip Export to China: Implications and Repercussions**
    - **Séamus Grimes**, Emeritus Professor, University of Galway
  - **China’s Innovation and Technology Policy Response in the Context of the US Tech Export Controls**
    - **Sourabh Gupta**, Head, Trade ‘n Technology Program, Institute for China-America Studies
  - **US-China Tech Decoupling: A View from Europe**
    - **Rebecca Arcesati**, Lead Analyst, Mercator Institute for China Studies
- 11:25 a.m.      **Closing Remarks**
- **Robert Fay**, CIGI

---

# Participants

**Daniel Araya**

Senior Fellow, CIGI

**Rebecca Arcesati**

Lead Analyst, Mercator Institute for China Studies

**John Bruce**

Adjunct Professor, Carleton University

**Shelly Bruce**

Distinguished Fellow, CIGI; Former Chief (Deputy Minister), Communications Security Establishment

**Reanne Cayenne**

Research Coordinator, Digital Policy Hub, CIGI

**Gregory Cederwall**

Senior Trade Policy Officer, Global Affairs Canada

**Erin Chreptyk**

Program Manager, Policy Research, CIGI

**Dan Ciuriak**

Senior Fellow, CIGI

**Rogier Creemers**

Lecturer, Leiden University

**Matthew Da Mota**

Digital Policy Hub Fellow, CIGI

**Dianna English**

Director, Program Management, CIGI

**Robert Fay**

Managing Director of Digital Economy, CIGI (until February 2024)

**Danielle Goldfarb**

Senior Fellow, CIGI

**Séamus Grimes**

Professor Emeritus, University of Galway

**Sourabh Gupta**

Head, Trade 'n Technology Program, Institute for China-America Studies

**Alex He**

Senior Fellow, CIGI

**Patrick Leblond**

Senior Fellow, CIGI; Associate Professor, University of Ottawa

**David Lin**

Senior Director, Future Tech Platforms, Special Competitive Studies Project

**Douglas Lippoldt**

Senior Fellow, CIGI

**Clay Lowery**

Executive Vice President, Research and Policy, Institute of International Finance

**Jessica Martin**

Research Associate and Communications Officer, Institute for China-America Studies

**Rohinton P. Medhora**

Distinguished Fellow, CIGI; Professor of Practice, Institute for the Study of International Development, McGill University

**Patricia Meredith**

Senior Fellow, CIGI

**Bessma Momani**

Professor of Political Science, University of Waterloo

**Maral Niazi**

Digital Policy Hub Fellow, CIGI

**Paul Samson**

President, CIGI

**David R. Stilwell**

United States Assistant Secretary of State, Bureau of East Asian and Pacific Affairs (2019–2021)

**Andrew Thompson**

Senior Fellow, CIGI; Adjunct Assistant Professor, Balsillie School of International Affairs

**Wallace Trenholm**

CTO, Zero Server Foundation

**Jia Wang**

Deputy Director, China Institute, University of Alberta

**Yang Wang**

Software Developer, CIGI

**Lydia Wilson**

Accounting Manager, CIGI

**Charles Zheng**

Senior Director, Nvidia

**Nikolina Zivkovic**

Research Associate, CIGI

---

**Centre for International  
Governance Innovation**

67 Erb Street West  
Waterloo, ON, Canada N2L 6C2  
[www.cigionline.org](http://www.cigionline.org)

