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Canadian Shield Institute

Foundations of Digital Sovereignty
Chapter 2 - May 2026

The Weaponization of Governance

Contents

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Overview

The postwar international rules-based order was built on a comforting fiction: that governance frameworks are neutral. They are not.

Standards bodies, trade agreements, and international legal systems are active battlegrounds where savvy nations carve out competitive advantage — and Canada has largely been asleep at the wheel. This chapter focuses on technical standards as the hidden terrain where the terms of the digital economy are set, and makes the case that Canada must abandon its naive trust in the system and begin playing to win.

Key Takeaways

1. The ISO maintains over 26,000 standards across 800+ technical committees — and the process of writing them is actively exploited by the U.S., China, and others to advantage their own firms.

2. Standards are not neutral. Microsoft's "Embrace, Extend, Extinguish" doctrine of the 1990s — publicized by the U.S. Department of Justice in antitrust litigation — is the textbook example of how a single actor can weaponize standards to crush competition.

3. China's Standards 2035 Strategy has made China the world's top holder of 5G Standard Essential Patents, accounting for 40% of the global total. Every piece of 5G infrastructure sold anywhere globally generates royalties flowing to Chinese firms.

4. Trade rules that appear neutral — like CUSMA provisions on cross-border data flows — can functionally favour foreign hyperscalers when those firms dominate the market.

5. Canada must map its gaps in international standards bodies, develop procurement standards for strategic sectors, and build a national conformity assessment framework.

The Looking Glass War

State Weaponization of International Governance Frameworks and Canada's Need for a Strategic Approach

In Prime Minister Mark Carney's watershed speech at the World Economic Forum in Davos, he spoke of the decline of the international rules-based order, and the pleasant fictions on which it was built.[1]

More than most countries, Canada had the privilege of simply going along with the fictions of the rules-based order underpinned by American hegemony. That tacit order has now been ruptured, and we must come to terms with that reality. The postwar world order, particularly for western states, was built upon an idea of neutral rules, systems and collaborative international organizations. This was a pleasant fiction.

In reality, the seemingly neutral terms of the global rules-based order have always been a venue where savvy nations are able to carve out advantage. By naively trusting the system at face value, Canada has been picked apart by our more ruthless competitors.

Carney's proposal to build new systems of co-operation is valid, but we continue to miss the core point that the tools and frameworks of governance themselves are in fact weaponized.[2]

This chapter will focus primarily on standards, which act as the hidden battleground for setting the terms of development for nearly every sector of the economy — and notably, every aspect of the digital realm.

But the competitive dynamics that we illustrate in the realm of standards are equally present within trade agreements, international legal systems, and other notionally neutral venues for global cooperation.

Canada must be alive to the opportunities and the risks of weaponized international frameworks, and we must take a strategic approach to assert our own terms for technology governance and development.

What Are Standards?

Standards are documents which aim to ensure consistency and interoperability among systems and products. Standards are meant to be consensus-based technical documents developed by expert stakeholders — usually representing interested companies or governments in national and international standardization processes.

The International Organization for Standardization (ISO) maintains a catalogue of more than 26,000 standards, with more than 800 technical committees devoted to everything from leather products to quantum technologies.[3] While standards generally appear to be technical, neutral, and pragmatic documents, there is a lengthy history of corporations and countries using the standards development process to gain a competitive advantage. The most infamous and well-known example of domination of international frameworks by a company is Microsoft's "Embrace, Extend, Extinguish" doctrine of the 1990s and early 2000s.[4]

Microsoft would embrace existing open standards in their own products, extend the requirements of the open standard to make it difficult for competitors to meet the requirements and to privilege their own products, with the aim to extinguish competition and dominate that product space.

The U.S. Department of Justice found this practice to have contributed to Microsoft's monopoly dominance of web browsers and operating systems in the late 1990s.[5]

> Countries and companies are able to quietly gain advantage through standards partly because the ecosystem is extremely complex.

Jurisdictions typically have accredited Standards Development Organizations (SDO). These organizations write standards which are then reviewed and approved by a national standards authority.

Among technical standards, there are typically ***Open Standards***, which are publicly available and collaboratively maintained documents that are usually non-proprietary — meaning that anybody can use them without a licence.[6]

Closed Standards, by contrast, are proprietary technical standards that are typically developed behind closed doors.[7] Closed standards are not published publicly, and require paid licensing to use.

Importantly, some standards are designated as ***Standard Essential Patents (SEPs)*** which means that in order to use the standard, you need to pay a licensing fee to a company that owns essential IP.[8]

Some types of standards are designated as ***Mandatory Standards*** which means that a government has mandated them in law.[9] This means that to comply with a given law, a company must ensure its product meets a given standard. The benefit of this approach is that this acts as a more flexible approach to regulation, because the standards are maintained and updated through a consensus-based industry process.

Standards are also embedded within major Canadian trade agreements, including the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, the Canada-USA-Mexico Agreement, and the Comprehensive Economic and Trade Agreement with the European Union.[10]

Weaponization Is Standard Practice

Like other forms of international governance, the United States has dominated standards bodies since the Second World War, primarily through actively working to build those international frameworks. The U.S. models an open and balanced, industry-led, consensus-driven and voluntary adoption of non-binding standards.[11] The consensus-based development and the voluntary adoption of these standards has led to the misconception that these are neutral instruments. They are not.

The U.S. has long been dominant in the international standards setting regime by "establishing a technological order that best promoted its own interests" and those of its firms.[12]

In the 1980s, the U.S. adopted an approach to focus on digital technology, prioritizing interoperability so that all jurisdictions could easily adapt to technologies coming from U.S. companies.[13] This made U.S. technology firms into global powerhouses that deepened their control of standard setting through forming consortia for standards development. The U.S. dominated this space for decades, with smaller nations like Switzerland, Germany, and South Korea carving out spaces for their own technology companies under the U.S. system.[14] Within the last two decades, China began to grow its technological innovation sectors and assert itself in global standards architectures to strategically position its own technologies. Historically, China had been a standards taker by copying established international standards.[15]

In recent years, China has expedited its efforts to influence standards, based on the idea that "third-tier companies make products, second-tier companies design technology, and first-tier companies set standards."[16]

The China Standards 2035 strategy aims to reverse China's position as a taker and royalty fee payer of SEPs by increasing the SEPs that use Chinese intellectual property.[17] This strategy established a two stream approach to dominance in international standards.[18] This approach is to engage actively in existing international standards regimes, while developing an alternative international standards system based on technical standards created in China.

We see the competitive dynamics at play in 5G technology. The U.S. took an early lead in defining the standards space. The MIT-developed Low-Density Parity-Check (LDPC) protocol for 5G data transmission became the default that was attached to multiple standards.[19] But in recent years, China has worked to grow the influence of the Chinese-developed Polar protocol which is an alternative to LDPC in some use cases.[20] This Polar protocol has now been included in several standards.

One interesting part of the 5G battle is the accusations of "over declaration" of patents as essential to the 5G standard.[21] China in particular has had a marked rise in telecommunications SEPs[22], ranking first globally among declared 5G SEP families accounting for 40% of the global total.[23] In this way, the tussle for dominance in writing the 5G standard isn't just about shaping the technology, it's about which companies get paid a patent royalty for every piece of 5G infrastructure.

With emerging 6G infrastructure, the competition over governance seen with 5G is even more heated. The leading SDOs working on 6G standards are 3GPP, ITU, IEEE, and the O-RAN Alliance all of which have different key stakeholders. Although they are collaborating on 6G standardization, there are significant challenges and debates on key issues around security, information gathering, and how 6G integrates with other technologies like AI or IoT systems.[24] Both Chinese[25] and U.S.[26] standards bodies have identified 6G as a strategic area they seek to lead in and are engaged actively in these standards technical committees for 6G.

We see another standards fight when it comes to European Union efforts to regulate AI, by using mandatory standards as the means by which the EU AI Act will be adhered to by companies. Article 42, the "presumption of conformity," in the Act means that any designated "high risk" AI system trained on data related to the EU will be presumed to comply with the Act's requirements, primarily through certifying conformity with the standards that they are developing.[27]

High risk models are those that deal with designated high risk data (biometric data or other private data), function in a safety related role in a broader system, or have other designated criteria.[28] The EU developed AI standards will require companies to consider whether an AI system is high-risk, how it handles personally identifiable data, and whether an AI system has cybersecurity implications. We see American actors pushing back through the EU's technical committees developing the standards, not because they have a different standard, but because they resist the mere existence of a mandatory standard and the presumption of conformity that would require companies to track and comply with risk assessments and privacy considerations.[29]

The Tip of the Iceberg

Because standards are highly technical, complex, and much of the meaningful work happens behind closed doors, it is difficult to get a complete picture of how widespread the weaponization of standards is. What we know is that many of Canada's peers invest significant money and attention into standards development, and they often openly acknowledge that this is a realm where they can create meaningful competitive advantage.

Beyond standards, we also see countries working to tilt the playing field through notionally neutral vehicles of international co-operation. The NATO military alliance's defence spending target is facially neutral in the name of self-defence, but in reality procurement dollars from NATO members have overwhelmingly flowed to American defence companies. This explains why the United States has historically been so vocal about insisting that NATO allies meet their defence-spending targets.

Similarly, as we will see in the subsequent chapters of *Foundations of Digital Sovereignty*, provisions in the Canada-USA-Mexico trade agreement concerning cloud services and cross-border data flows may seem like a neutral provision to allow for the free-flow of data. But when the cloud service market is dominated by a small number of American hyperscalers, these trade rules evidently favour one country, and restrict the policy options for Canada.

Conclusion

Canada must abandon the naive assumption that governance frameworks are fair or neutral and begin pursuing our own strategic interests. This does not have to mean abandoning our values or taking a cynical approach.

In his Davos speech, Prime Minister Carney said a new international order for middle powers, "means building what we claim to believe in, rather than waiting for the old order to be restored. It means creating institutions and agreements that function as described."

We cannot create institutions and international rules if we can't acknowledge how these systems actually function.

Canada should not be underhanded or exploitative, but we need to protect our own interests and assume that every other country is motivated to do likewise.

We need a clear strategic map for standardization and governance. This begins with a set of clear standards to define procurement and furthering domestic technology development, and a framework and ecosystem for verifying compliance. This will all work to establish a foundation for strategic engagement with technology governance that Canada can build on.

Solutions

In order to develop a stronger, more realistic approach to standards and other forms of international co-operation, here are several tangible policy steps that the government can take immediately:

1 Map a national approach to domestic and international governance frameworks with clear timelines and outcomes. This would include work to audit gaps in Canadian representation across key international bodies, and develop a coordinated plan to engage aggressively or build alternatives that prioritize Canadian companies and protect Canadian sovereignty.

2 Develop government standards for procurement and governance across strategic sectors including AI, quantum, communications, space, infrastructure, manufacturing, and defence. These standards would embed Canadian values, prioritize authentic Canadian suppliers, protect domestic value creation, promote interoperability, and foster competitive bidding.

3 Establish a national trust verification and conformity assessment framework providing credible third-party validation of conformity with technology standards making Canada a destination for verification and compliance. This will involve working with existing bodies, business, academia, and communities to build an ecosystem and market around conformity assessment and verification, particularly in complex emerging areas like AI.

Canada must develop a strategic approach to international governance. If we are not makers of standards and frameworks, we will perpetually be takers. If Canada can successfully recombine its strengths into a values-based but interest-driven approach, we also have the potential to be a leader globally in ethical and productive governance of technology.

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