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Setting A New Standard: Safeguarding Global Technology Governance for Future Generations

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Introduction

A significant, albeit underappreciated, legacy left to us by previous generations is the international standard setting system. The complex of standard setting institutions, such as the International Organisation for Standardisation (ISO) and the International Telecommunications Union (ITU), effectively function as a transnational system of global technology governance. As technology comes to permeate every part of our world, and the risks associated with technology grow, maintaining international cooperation on common standards for safety, efficiency, and interoperability is more critical than ever. Even as other multilateral institutions have encountered problems of gridlock and politicisation, international standard setting organisations have continued to run relatively smoothly, bringing together experts from around the world to work on critical questions of technology governance. This is a legacy that is hugely important and worth preserving.

This system, however, is under threat. As in other international institutions, accommodating new voices and perspectives in a changing world has proved challenging. In particular, the growing technological competition between the United States and China has seen increasing politicisation of international standard setting. Standard setting is increasingly being seen as a "tool of power", a way of establishing political advantage and gaining a position

as a leader in the global technology race.[1] This explicit politicisation is threatening to undermine the efficacy of these institutions, which have traditionally been based on compromise and consensus decision making. This risks undermining a key forum for working towards global solutions to risks from emerging technologies, and could fuel technological "decoupling" between the US and China.[2]

Preserving the legacy of the international standard setting system requires us to halt these trends towards politicisation. This will require, however, addressing some of the problematic legacies within these institutions, namely inadequate representation and a democratic deficit. The international standard setting system has traditionally been dominated by representatives from a small number of Western countries, and discussions largely take place behind closed doors with few interests from civil society represented. If we want to preserve this legacy for future generations, we need to live up to the ideals of the original architects of this system: to make these institutions truly cosmopolitan and democratic.

This short paper will elaborate on this argument. The first section will explain what the international standard is and why it is such an important legacy for us today. The following section will consider the threats facing this system from growing politicisation. The concluding section will address what we need to do to safeguard this legacy for future generations.

A System of Global Technology Governance

It may seem strange to think of international standard setting institutions as a critical part of the global governance system. Usually when we think of global governance, we imagine large intergovernmental institutions, such as the United Nations or the European Union; multilateral agreements such as the UN Declaration on Human Rights; or international treaties such as the Convention on the Law of the Sea. International standard setting, on the other hand, strikes many of us as dry and technical; more a matter of technical administration than of governance.

This characterisation, however, belies the fundamental role played by international standardisation in our modern technological world. Standards underpin globalisation. They facilitate international communication, travel and the transport of goods. International shipping would be impossible without the international standard setting system.[3] Cyberspace is built on standards, from the Internet Protocol (IP) allowing the establishment of interconnected networks to Wi-Fi allowing devices to connect to the network using a common standard. Without an international system of standards to ensure interoperability at every stage of industrial supply chains, the internationalised markets for goods and services we take for granted today simply could not exist. International standard setting can thus be seen as part of the growing complex of global administrative law that underlies virtually

[1] Tim Rühlig, "Chinese Influence through Technical Standardization Power," Journal of Contemporary China, DOI: 10.1080/10670564.2022.2052439 (2022).
[2] 'Sizing Up the Effects of Technological Decoupling', IMF, 2021, Sizing Up the Effects of Technological Decoupling (imf.org)
[3] Marc Levinson, The Box 170-4 (2nd Edition, Princeton University Press: Press, 2016)

all transnational commerce and interaction.[4]

Another feature of international standard setting that is unlike other forms of global governance is the fact that it is primarily private sector led. Most standard setting organisations operate on a system of national representation, whereby each country or region will send a representative to take part in committee meetings, but these representatives are for the most part employed by private companies. These private actors are in effect performing public regulatory functions at the global level.[5]

The unusual form of the international standard setting system has helped it to avoid the politicisation that has gridlocked other institutions of global governance. International standard setting can perhaps best be characterised as a form of hybrid governance, blending elements traditionally considered as part of separate 'political' and 'technical' realms.[6] This ambiguity of standards as political/technical artefact contributes to their effectiveness as a tool of global governance.

Safeguarding this international system of technology governance for future generations is hugely important for meeting the challenges of the 21st century. The transnational risks from new technologies such as AI and emerging biotechnologies require global cooperation on solutions. International standard-setting is a major route through which such governance cooperation can be achieved. Cooperation on safety standards for advanced AI technologies, for example, have been proposed as a way of mitigating risks of AI systems that are poorly aligned with our interests.[7] In the face of gridlock across the international system, it is particularly important to preserve those areas where cooperation is still possible.

Threats to the International Standard Setting System

Today, the international standard setting system is facing unprecedented strains that threaten its very foundation. In general, standards are set at an international level, within organisations like the ISO, by committees made up of experts from around the globe. These experts reason together to arrive at a technically optimal standard that is acceptable to all members. Decisions take place by consensus. Arguments made in defence of one standard over another are expected to be backed up by evidence. In principle, arguments about scientific validity, not national interest, are supposed to drive the debate inside these standard setting committees.

The strains within this system come from the increasing politicisation of these institutions in recent years, linked to the rise of China as a force within international standard setting. This politicisation risks undermining the values on which these institutions have

[4] Benedict Kingsbury, Nico Krisch, and Richard B. Stewart, "The Emergence of Global Administrative Law," 68 Law and Contemporary Problems 15 (2005).
[5] Dan Danielsen, "Corporate Power and Global Order," International Law and Its Others, 85 (2006).
[6] Jean-Christophe Gras, The Power of Standards: Hybrid Authority and the Globalization of Services (Cambridge: Cambridge University Press, 2019).
[7] Peter Cihon, "Standards for AI Governance: International Standards to Enable Global Coordination in AI Research & Development," FHI Technical Report (April 2019), Standards_-FHI-Technical-Report.pdf (ox.ac.uk)

functioned effectively for the past century. Until the mid 2000s, China's engagement in international standard setting was limited. In the last decade, however, China's involvement has greatly expanded, with Chinese officials occupying more leadership roles in committees and Chinese experts putting forward many more proposals for standards.[8]

China's rise has upset the balance of power within these organisations. The perceived politicisation of Chinese companies' involvement in standard setting bodies has in turn led to calls for European and US governments to take a more active approach to managing their engagement in international standardisation. This has resulted in a spate of political initiatives focused on international standard setting. The G7 issued a 'Framework for collaboration on digital technical standards', aimed at increasing coordination between G7 countries in standards bodies.[9] In 2021 the United States and the EU launched the Transatlantic Trade and Technology Council, which included a working group addressing China's rise in international standard setting.[10] A number of domestic initiatives in the United States have also moved the issue of standard setting up the domestic policy agenda.[11] Technical standardisation is thus increasingly being seen as a crucial arena for commercial, normative and political conflict, and international standard setting bodies are being seen as arenas of great power competition.

This is a dangerous development. If national governments seek to assume a greater role in standard setting to defend what they perceive as their vital national interests, this risks undermining the values of impartial scientific decision making that have made international cooperation on standard setting so effective in the past. This kind of explicit politicisation would undermine the unique hybrid form of standard setting, replacing the technical with the expressly political. If participants conceive of their roles as promoting a particular political position, rather than deciding on 'apolitical' technical questions, then international standard setting organisations are likely to encounter the same problems that have gridlocked so many other international institutions.

The collapse of this consensus-based standard setting system would be hugely damaging, both for those alive today and for future generations. It would undermine one of the few functioning forums for global cooperation on the risks and challenges of emerging technology, many of which are likely to be transnational by their very nature. In a decoupled world, the risks of misuse or accident are higher due to greater mutual suspicion and less oversight, and there are fewer possibilities for mitigation.

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[8] Tim Rühlig, "Chinese Influence through Technical Standardization Power," Journal of Contemporary China, DOI: 10.1080/10670564.2022.2052439 (2022).

[9] 'G7 Digital and Technology - Ministerial Declaration', 28 April 2021 G7 Digital and Technology - Ministerial Declaration - GOV.UK (www.gov.uk)

[10] 'U.S.-EU Joint Statement of the Trade and Technology Council', 5 December 2022 U.S.-EU Joint Statement of the Trade and Technology Council | The White House

[11] 'Remarks by National Security Advisor Jake Sullivan at the National Security Commission on Artificial Intelligence Global Emerging Technology Summit', 14 July 2021 Remarks by National Security Advisor Jake Sullivan at the National Security Commission on Artificial Intelligence Global Emerging Technology Summit | NSC | The White House

Avoiding this outcome is therefore imperative.

Preserving the Legacy for Future Generations

How should we meet these challenges of politicisation that are threatening the international standard setting system? While there are no simple answers, there are some concrete steps that we can take to strengthen the legitimacy and resilience of this system. As noted above, international standard setting bodies have traditionally been dominated by representatives from a relatively small number of predominantly Western countries.[12] This has generated a democracy deficit. While standards, once made, get applied around the globe, not every country has the ability to make their voices heard in this process.

While it is not feasible for every country to build up the requisite human capital and expertise to play a part in every technical debate, there are ways in which representation could be improved. Establishing more regional standards bodies, such as already exists in Europe, would allow smaller nations to pool their resources, to identify key areas where they wish to represent their interests within the international bodies. Stronger vertical integration of this kind, from the national to the international level, allows for more engagement and influence in the large standard setting institutions.[13]

These bodies could also improve representation of civil society interests in the standard setting process. While organisations such as the ISO have started to allow more non-industry observers to take part in recent years, for the most part discussions still take place behind closed doors with little transparency, and with few civil society participants. Improving the representation within international standard setting, both in terms of national representation and allowing more space for civil society, would help to shore up the system's legitimacy, especially in the Global South. This would make it more resilient in the face of criticism from participants, who increasingly cast the enterprise of standard setting in competitive terms.

Improving representation, however, will not by itself reverse the trends towards technological decoupling that we are seeing today. To combat this, we must address the causes of politicisation in the first place. Part of this involves convincing governments both of the value of non-politicised international standard setting institutions, and of the fact that government direction of standard setting does not deliver good technological outcomes. The private sector-led standards system was built up throughout the 20th century precisely because it provided the best way to solve the thorny coordination problems involved in standardisation.[14] Governments stayed out because they were quite simply less effective.

Perhaps the best way to protect the legacy of international standardisation for the future is by honouring the vision imagined for it in the past. The original architects of the international standard setting system had high-minded goals for

[12] Walter Mattli and Tim Büthe, "Setting International Standards: Technological Rationality or Primacy of Power?" 1 World Politics 56 (2003).
[13] Walter Mattli and Tim Büthe, The New Global Rulers (Princeton: Princeton University Press, 2011).
[14] JoAnne Yates, "Let's thwart this terrible idea for standards setting" IEEE Spectrum 2021, Let's Thwart This Terrible Idea for Standards Setting - IEEE Spectrum

their enterprise. By promoting international cooperation in engineering, they believed that these organisations would promote cosmopolitanism and even a more peaceful world. Charles le Maistre, a founder of the ISO, repeated a common belief at the time when he said in 1913 that international standardisation meetings would be "a not unimportant factor in furthering the peace of the world."[15] The same sentiment was expressed in a keynote address at the first World Engineering Congress in 1929: standardisation would inevitably "lead this world into the golden age of real peace and happiness."[16]

The international standard setting system has a key role to play in meeting the challenges of the 21st century. If we safeguard these institutions from the threats posed by politicisation and great power competition then we will leave future generations with a functional system for the global governance of technology. Preventing fragmentation will leave them in a stronger position from which to address the many wicked problems that will arise with ever more powerful technologies. If we are careful and smart today, we can empower them to meet the great global challenges that lie ahead in this century.

[15] JoAnne Yates and Crag Murphy, Engineering Rules, 74 (Baltimore, MD: John Hopkins University Press, 2019).
[16] Yates and Murphy, Engineering Rules, 124.