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Regulate to Dominate: The Geopolitics of Standard-Setting in Digital Technologies and its Strategic Implications for the EU

This policy brief elaborates on the increasing importance of standard-setting as a means of advancing geopolitical competition, particularly in the global governance of emerging technologies, which are set to radically transform geopolitics and international relations at large. Building upon an extensive range of primary and secondary sources, it considers the rise of China in standard-setting and the implications of its new assertiveness for the strategic autonomy of the European Union. The policy brief argues that, as a global actor who has championed the shaping of international politics through norms and standards, the EU should welcome China's willingness to play by the rules of global standard-setting institutions. However, the EU should also defend its legacy as rule-maker, particularly in a geopolitical predicament of growing technological confrontation between the US and China.

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Introduction: standard-setting as a tool for geopolitical competition

Standard-setting can be conceived of as creating the perimeters of international governance, as it formalises the rules and boundaries within which competition in a market economy can take place. Standards are commonly perceived as an inherently technical activity: their function is to ensure levels of interoperability, safety, performance and general adherence to pre-existing wider rules and measures (Mattli 2001, 328). In other words, through standards, policymakers make sure that consumers "can have confidence that their products are safe, reliable and of good quality" (ISO). Private firms also actively participate in standard-setting, both to cut out the costs of R&D and to ensure their future competitiveness in the market (Suttmeier et al. 2006, 3). Against this background, standard-setting can be an effective tool for the global governance of emerging digital technologies. Indeed, since standard-setting regulates a range of technical issues, it fosters consensus around the use of new technologies and can help to establish red flags around their development and implementation (Cihon 2019).

In the field of digital technologies, several standard-setting bodies are active: the most important is the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), which have established a Joint Committee (JCT) in 1987 and a specific subcommittee (SC-42) dealing with standardization in the field of Artificial Intelligence. The subcommittee is chaired by US Technology Strategist Wael William Diab and contributes to the UN Sustainable Development Goal on Industry, Innovation and Infrastructure. Another important venue is the Institute of Electrical and Electronics Engineers (IEEE), which mainly develops standards for services like WiFi and Ethernet. Finally, an increasingly important role is that of the International Telecommunications Union (ITU), a specialized agency of the United Nations, which focuses primarily on information and communication technologies, but whose role in creating standards for AI-related technologies has increased over the years (Cihon 2019, 10).

Beyond mere technicalities, however, standard-setting can also be wielded as a geopolitical tool and a means to exert influence (Buthe and Mattli 2010, 463). The use of standard-setting to build geopolitical leverage has been defined as 'Standard Power' (Bishop 2015), an increasingly apt expression at a time of upheaval due to the upcoming digital revolution, which offers windows of opportunity to use standards for greater geopolitical purposes. Within this competitive environment, great powers, conceived of as "governments that oversee large internal markets", remain the principal actors in shaping rules and standards (Drezner 2006, 5). The US' attempt to prevent its allies from joining the Asian Infrastructure Investment Bank (AIIB), founded in 2013 by China as a rival to its well-established counterparts; the World Bank and the IMF, is an example of the use of standards for geopolitical reasons (Bishop 2015). A similar case is the dispute over the WLAN Authentication and Privacy Infrastructure (WAPI), adopted by the Chinese government in 2003 (and later withdrawn as a project in 2011) as a national standard alternative to WiFi, in overt violation of the provisions on Technical Barriers to Trade (TBT) of the WTO (Stuttmeier 2006, 4).

Given the growing strategic importance of emerging technologies, be they new generation networks such as 5G, the Artificial Intelligence that will fuel them or the Internet of Things (IoT), primacy in the standardization of this sector has become the main preoccupation of

national strategies. In particular, states operate so that international standards align with national strategies as much as possible (Cihon 2019, 21). Indeed, they appear to be a priority for the main powers: the US has issued an Executive Order on Maintaining American Leadership in Artificial Intelligence, which stresses the importance of keeping an edge in international standard-setting venues (The White House 2019). Similarly, in its "New Generation Artificial Intelligence Development Plan" (AIDP), China has highlighted the need for a more strategic stance in standard-setting bodies (Webster, Creemers, Triolo and Kania 2017). The risk, however, is that countries will increasingly turn to international standards not so much to secure the safety and trustworthiness of AI at a global level, but to ensure market shares and dominance for their national champions, thus further pushing international governance down the path of AI nationalism (Hogarth 2018).

The issue: grappling with China's renewed assertiveness in standard-setting

Technology means redemption for China. The country has well understood the geopolitical value of standardization and has worked over the years to build a digital policy based on "vision, energy and leverage" (Grotto, Shallbruch 2019). In the early 2000s, China's rise in regulatory regimes was already evident: as it has been noted, "interest in standards […] is rooted in long-held aspirations for Chinese technology and the belief that through technological development, China can reclaim a position of wealth and power lost to technologically superior countries over the course of the past 150 years" (Suttmeier et al. 2006, 11). However, in the past China pursued this goal through a techno-nationalist approach, which consisted of developing its internal standards and insulating the country from global competition. While this approach may have paid off in terms of internal control and development, it hasn't performed at the international level, where the US has had the upper hand in shaping standards for technologies such as the 3G and 4G networks. This is why China has now adopted a more techno-globalist stance, which seeks to challenge the former status quo. While Western (especially US) standards have fundamentally shaped the development of the Internet in the past, Chinese leaders aim to set the rules of the game in AI and related technologies for the future (Knight 2018).

Beyond long-term strategic purposes, the rationale for China to develop an assertive policy of standardization is twofold: setting global standards in emerging technologies is a way for the country to ensure its presence and increase its prestige in global institutions which it did not help to design; whilst also ensuring the greater competitiveness of Chinese companies (Ding, Triolo, Sacks 2018). In other words, China's rising influence in standardization fora is a byproduct of its more assertive and "muscular" industrial policy (Grotto, Schallbruch 2019), which is in turn part of a wider effort to achieve China's technological dominance. Standard-setting begets political importance and promises immediate economic gains, generating geopolitical advantages. For instance, the firms who secure patents for 5G networks will receive royalties every time that technology is implemented elsewhere, and the profits generated will then be reinvested to boost further innovation. By granting its companies "first-mover advantage", China aims precisely to perpetuate this virtuous cycle of profit and innovation (Triolo, Allison 2018, 9).

What China has figured out over the years is that the key to influencing global governance is presence. Indeed, China's presence in standard-setting bodies is significant: Chinese national, Houlin Zao, has been re-elected for the second time as Secretary-General of the International Telecommunication Union (ITU) and China's influence in the ISO has also dramatically improved (Arcesati 2019). Moreover, China's influence has expanded in the groups and subgroups of the Third-Generation Partnership Project (3GPP), a consortium of seven major standards organizations dealing with wireless standards and lately focusing on 5G, where the Peoples Republic of China (PRC) can boast a total of 110 members compared to the 82 of the US (Zhong 2018; Lucas 2019). A shadow, however, is cast upon Chinese moves in standard-setting bodies: it seems that the country's representatives lure foreign companies into accepting their standards and technical proposals by promising them deals under the table, just to bash them at home once these firms seek to enter the Chinese market (Beattie 2019).

According to some, China's growing assertiveness in standard-setting should not be deemed problematic: on the contrary, it is fully in line with American and European aspirations of making standardization processes as widely adopted as possible to avoid barriers and local solutions (Greenbaum 2018). Nevertheless, it is undeniable that Chinese preeminence in securing patents for 5G networks might give it an important edge in the underlying technology, which is poised to become crucial for the future of geostrategic competition.

Finally, another aspect to be considered is that China is trying to influence global regulatory regimes through its chief foreign policy project, the Belt and Road Initiative (BRI). The aim of the Chinese government is to extend its domestic standards to the regions touched by the project, without being subject to the level playing field foreseen by global standard institutions, thus giving an edge to Chinese companies (Fagersten, Ruhlig 2019, 115; for an analysis on the opportunities for cooperation between the EU and China in the Caucasus, see Rzayev 2019).

Against this background, the EU must devise a sound standard-setting strategy, to not be caught off-guard amid the crossfire of the technological confrontation between the United States and China.

The EU's Presence under Challenge

The shaping of norms and standards is of paramount importance for the EU in defending its strategic autonomy and to mitigate against Chinese assertiveness (EPSC 2019, 7). While the EU has been at the forefront of standard-setting in the economic realm, it is currently not paying sufficient recourse to standards in the new global digital arena. This is unfortunate, especially considering that the EU is a polity devoid of "digital champions", which aspires to set the rules of the game through ethical standards and the commercialization of "trustworthy AI" (Commission 2019; Renda 2019a). Though European countries, notably Germany, are still unrivalled in terms of secretarial positions in standard-setting bodies, China is by far the most active member in technical committees where the actual action takes place (Fagersten, Ruhlig 2019, 10).

In some fields, such as 5G networks technologies, where European dependence on Chinese infrastructures is far greater than the US, the EU has started taking some concrete steps. As is ostensibly put forward on the European Commission's website, standardization in 5G is one of the priorities of the *Digitising European Industry*

initiative (European Commission 2016a; see also Commission 5GPP 2015, 14). Also, the communication *Connectivity for a Comprehensive Digital Single Market. Towards a European Gigabit Society* highlights the importance of emerging digital technologies, notably 5G, as being essential to ensuring the competitiveness of the bloc on the global market (European Commission 2016b).

To this end, the Commission is rightly focusing on the coordination of approaches among member states to ensure internal harmonization and the swift introduction of 5G-enabled technologies across the continent (Commission 2016c, 3). Finally, the Commission recognizes the strategic importance of standardization processes in new technologies, and appears to acknowledge that, so far, the issue has lacked political attention among EU-policy makers. This is even clearer when compared to the results obtained by "some large emerging economies" (i.e. China), which have successfully scaled up efforts to increase their leverage in standard-setting bodies (European Commission 2016d, 3). What is striking, however, is that the EU Action Plan only gives perfunctory attention to the promotion of global standards by placing them last among the priorities pinpointed by the Commission (European Commission 2016c, 3). Hence, greater awareness is required from the EU to ensure that the geopolitical value of standard-setting is not underestimated. However, the EU's "standard fatigue" is also related to the inherent difficulties of harmonizing the interests of all the member states before being able to boast a compact and solid standard-setting strategy.

Policy Recommendations

Leadership in technology governance, of which standardization is a fundamental part, will be key for powers hoping to wield influence over the future geopolitical landscape. Like its American and Chinese counterparts, the EU legitimately aspires to lead in this field. Regulation is by far the most effective and incisive instrument the EU has at its disposal to shape international norms, as the successful General Data Protection Rule (GDPR) on data privacy attests. Yet if the EU wants to extend its "Brussels effect" (Bradford 2012) to the wider technological domain, it needs to take prompt action to engage constructively with China. While some call for the building of a "digital governance alliance" between the US and the EU to counter the rise of China (Grotto, Schallbruch 2019), this hardly seems feasible in light of the wider drift that the transatlantic alliance is facing. Nor would it seem realistic to imagine that ad hoc alliances in institutional fora between Europeans and Americans could slow down China's advance, as the recent episode of the race for the directorate-general of the FAO (won by Chinese Qu Dongyu) demonstrates (Lynch, Gramer 2019).

Nevertheless, there are concrete steps that the EU can take to constructively engage with China whilst ensuring they do not fall behind in the competition for regulatory standards in emerging technologies:

1) **Keeping China in**

The EU must stick to the objective of keeping China in international regulatory institutions to bolster cooperation and to make its partner accountable in international regulatory regimes. After all, this is also envisaged in the latest strategic outlook on China-EU relations (European Commission 2019).

2) **Quality over quantity**

The EU should live by the saying "quality over quantity" when it comes to regulation and standards and should strive to maintain its record as rule-maker. Until now China's approach to influencing international standardization has been almost entirely quantitative, meaning that the PRC sends several low-quality proposals for standardization, which are rejected from the outset by other participants due to a lack of clarity and purpose (Fagersten, Ruhlig 2019, 14).

3) **Making Space for Ambition**

The newly appointed Commissioner for the portfolio "Europe Fit for the Digital Age", Margrethe Vestager, should make a stronger presence in standard-setting bodies in the digital domain a priority for the European Union.

4) **Avoiding bifurcations**

The EU should seek to avoid the bifurcation of the new technological environs into a US-led and a China-led camp. Rather, it should strive to keep China in the current institutional setup and to maintain a single digital ecosystem. It should also seek to seize every opportunity for effective trilateral cooperation.

To conclude the EU must continue to uphold its overall objective of influencing international politics and economics through norms and standards whilst welcoming the growing Chinese participation in international standard-setting fora; after all, as it has been observed, global standards will need concerted action to finally emerge (Renda 2019b, 37-40). At the same time, however, the EU should not underestimate the profound and long-held strategic purposes of the PRC, which often masks as active participation and international cooperation what are clear attempts to secure primacy in sectors, such as emerging technologies, deemed indispensable for China's growth and development. To rise to the challenge posed by China in standard-setting, greater consistency and clarity of purpose are needed from the European Union.

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