

Rising China and the Global Internet: Assessing China's Challenge to the Global Internet Governance System and the International Liberal Order

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Abstract

Is China reshaping the rules of Global Internet Governance? Is China increasing state-centricity in Global Internet Governance? Is China fragmenting the Internet? These are open questions on the future of multistakeholder Internet governance that this paper, together with the doctoral project it stems from, seeks to answer. This article explores Chinese state- and non-state actors' engagement in mobile Internet standard-making (from 3G to 5G) and critical Internet resources governance (IPs and DNS) through semi-structured expert interviews, triangulated with quantitative data from 3GPP and the IETF. Through the lenses of cognitivist regime theory, this analysis is connected to the broader debate on China's rise and the future of the Liberal International Order. This article concludes that the more China grows politically powerful and its domestic actors economically stronger, the more they show willingness to participate in standard/norm-making within the existing governance arrangements and regime complexes. In light of these findings, in terms of International Relations Theory, this article maintains that the Liberal International Order allows states to grow to superpower status from within the existing system and regime complexes, reducing incentives to engage in the dismantling and re-establishment of the existing institutional arrangements.

1. Introduction

The debate on the possible consequences of China's rise and the challenges this actor poses to the Liberal International Order has been thriving for about two decades (Mearsheimer, 2006; Ikenberry, 2008, 2011, 2018; Wang, 2011; Zheng, 2005; Buzan, 2010, 2014). The same is true of global Internet governance, where China has long been seen as a challenger to the established multistakeholder (and liberal-informed) governance architecture, although accounts have become more nuanced through time, appreciating the multiple-layered, and oftentimes ambiguous, approach of Chinese stakeholders to global Internet governance (Mueller, 2017; Klimburg, 2017; Negro, 2020). Whether or not the challenges and potential threats posed by China are real or presumed has been subject to debate both in International Relations (IR) Theory at large and in Global Internet Governance literature.

This paper stems from a three-year doctoral project that has reached the end of its second year at the time of writing. The project seeks to answer the following research question: *to what extent is China reshaping the rules of Global Internet Governance? And in particular: is China increasing state-centricity in Global Internet Governance? And Is China fragmenting the Internet?*

To be sure, 'global Internet governance' tends to be a catch-all term for any Internet-related activity. However, DeNardis and Raymond (2013, p. 3) conceptualised six subsets that together constitute

global Internet governance as a whole: “(i) control of ‘critical Internet resources,’ (ii) setting Internet standards, (iii) access and interconnection coordination, (iv) cybersecurity governance, (v) the policy role of information intermediaries, and (vi) architecture-based intellectual property rights enforcement.”

This article – and the project it stems from – focuses on China’s influence in (i) mobile Internet standardisation activities (from 3G to 5G) and (ii) critical Internet resources (CIRs) governance (i.e. IPs and DNS governance). Arguably, mobile Internet standards do not fully fit a single subset of DeNardis and Raymond’s (2013) taxonomy. Nonetheless, it can be argued that the politics around them cuts across points (iii), (iv) and (vi). To start with, each generation of mobile Internet standards aims to strengthen and widen access and interconnection. As showed in the forthcoming sections, especially section 6, matters of specifications compatibility affect mobile interconnection. Furthermore, matters of cybersecurity governance centred on 5G infrastructures, whether warranted or not, have been raised in the context of the US-China tech war (The Economist, 2020; Ciuriak, 2019). Finally, architecture-based intellectual property rights enforcement is always an issue at stake when it comes to standardising Internet-based technology in any form (IPLytics, 2020; Kim et al., 2020). These same aspects make the politics of mobile Internet standardisation processes relevant for IR as a discipline, as aspects of geopolitics, security, and economic competition are entailed. To this, it must be added that 5G can enable IoT devices aimed at many strategic sectors, including medicine and the military among others (Wang et al., 2018). Similar criteria of relevance for IR Theory apply to CIRs, especially inasmuch as human rights and financial aspects are concerned: online censorship is most often IP- and/or DNS-based. It used to be WikiLeaks’ case: when the website was shut down, it became inaccessible by typing its domain name in the Uniform Resource Locator (URL) bar or through a common browser search. However, by typing in its IP address, the website would open (Deibert, 2009). To summarise, given their political and economic salience, IPs and the DNS are the CIRs under analysis in this research project. Coherently with the multistakeholder approach, this paper analyses both China’s government’s and China’s non-state stakeholders’ activities.

Theoretically, this article will base its analysis on cognitivist regime theory and argue that the more China and Chinese actors grow economically and politically stronger, the more they become involved in the existing Internet governance regime complex, increasing their influence in the existing arrangements without necessarily acting for changing their norms, rule, and principles. On the other hand, this article will maintain that an extent of ambiguity remains in China’s relation to ICANN (Internet Corporation for Assigned Names and Numbers) and the multistakeholder critical Internet resources regime in line with the literature (Negro, 2020). Nevertheless, evidence currently suggests that China has no willingness to fragment the Internet. Empirical data are generated through qualitative semi-structured interviews with experts and triangulated with quantitative data from the IETF (Internet Engineering Task Force) and 3GPP (3rd Generation Partnership Project). Less straightforward is the situation of ICANN data, which are more scattered and less systematised also due to the very nature (based on discussion, rather than the presentation and approval of technical document) of the body (Galloway, 2015). From the point of view of IR Theory, this article argues that the Liberal International Order allows emerging powers to fully participate in the existing order, which includes the organisations and (in)formal regimes it incorporates, and achieve the status of great powers within it (Deudney and Ikenberry, 2018).

Methodologically, this article also contributes to the inclusion of technical communities' views in political-scientific analysis. Recent literature underlines that studies of techno-political issues often do not account the views and experiences of the technical experts involved, who instead play a relevant, albeit informal, diplomatic role as their expertise shapes the decisions made by formal decision-makers (Tanczer et al., 2018).

Through this research, two major debates in global Internet governance literature are addressed: (i) multistakeholderism and the role of governments in global Internet governance; and (ii) alignment and fragmentation of the Internet. The first debate concerns relations among stakeholder groups in global Internet governance and the future of the multistakeholder system; the second debate focuses instead on whether the global Internet is here to stay or will yield regional and national 'splinternet' – i.e. whether China is creating a separate national Internet or controlling (aligning) online information flows domestically while participating in and shaping the rules of the global Internet. While these debates are often framed dichotomously, this research rejects the most dualistic views and tries to elaborate a nuanced interpretation of Chinese actors' role in Internet governance.

The next section of this article illustrates the debate on China's rise in IR Theory, while the third summarises the debate on China in global Internet governance. The fourth section shows this paper's theoretical framework, followed by methodology, concepts, and ethical considerations in the fifth section. The sixth one illustrates the early findings stemming from empirical research, while the seventh discusses caveats, strength and weaknesses of this research connected to methods, positionality and availability of sources. Finally, the eighth section draws conclusions.

2. China's Rise in International Relations Theory

In IR Theory, on the one hand, Friedberg (2005) leads the 'China threat theory' school of thought. His account is shared by Mearsheimer (2006), who, adopting the 'offensive realism' framework, believes that a hegemonic war between the established global power, namely the US, and the newly emerging one, i.e. China, is inevitable. Offensive realism posits that the anarchical nature of the international system pushes states to behave as power-seekers in their mutual relations (Mearsheimer 2001, 2006). As they feel threatened by relative losses thereof, hegemonic wars are inevitable among established great powers and emerging ones, as posited by Waltz (1959, 1979) (Mearsheimer, 2001, 2006, 2018, 2019). On the other hand, the liberal scholar Ikenberry (2008, 2011, 2018) maintains that the Liberal International Order is different from previous ones. By bringing together liberal elements (e.g. the promotion of universal values) as well as Westphalian ones (e.g. the inviolability of national sovereignty), he maintains that the Liberal International Order sets rules for interstate relations that can suit states independently of their domestic political conditions. By being based on openness (e.g. maximisation of economic benefits through free market), such order provided incentives for its members to pursue the integration of new-born states and emerging powers. By the same token, emerging powers are incentivised to integrate in the existing order rather than seeking to establish one anew – which potentially explains why rising China joined the World Trade Organisation, arguably one of the most outstanding institutional forms of the International Liberal Order, at least in its economic dimension (Ikenberry, 2008; Deudney and Ikenberry, 2019). Within the continuum that runs between Ikenberry's optimistic view of the Liberal Order's capacity to peacefully integrate China and Mearsheimer's offensive realism, Buzan (2010, 2014) and Glaser (2011), from different theoretical perspectives, assume China's rise can be peaceful pending the willingness and capacity of the US and Chinese national leaderships to

make it such. Willingness to compromise and to de-escalate potential military tensions is an essential part of this processes according to Glaser (2011). It goes without saying that Chinese scholarship has been proactive in providing a Chinese perspective to this debate. The term ‘China’s peaceful rise’ was coined in 2005 as a response to the ‘China threat theory’ (Zheng, 2005), which emerged in the 1980s and internationalised after the Cold war (Yu and Chiang, 2010). Changed to ‘peaceful development’ for fear that ‘rise’ could sound to threatening to the Western counterpart (Kissinger, 2011; Buzan, 2014), ‘peaceful rise/development’¹ has remained a key term in the debate on China’s growth in the global order. The concept of China’s peaceful rise/development has further been endorsed and endorsed by Wang (2011), who finds that

[i]f the international community appears not to understand China's aspirations [and needs], the Chinese people may ask themselves why China should be bound by rules that were essentially established by the Western powers. China can rightfully be expected to take on more international responsibilities. But then the international community should take on the responsibility of helping the world's largest member support itself.

In line with Glaser (2011) and Buzan (2014), Wang (2011) also takes the role of national leaderships into account. Not only has Chinese scholarship provided political-scientific support to the ‘peaceful rise/development’ theory, but has also elaborated Chinese schools of thought that draw upon both the internationally established ones, elaborated in the West, and Chinese traditional philosophy. Qin (2018) identifies his own ‘relational theory’, Yan Xuetong’s ‘moral realism’, and Zhao Tingyang’s ‘tianxia (天下, all under heaven) system’ as the three main ones. It goes without saying that each theorisations carry assumptions on and implications for ‘peaceful rise/development’ theory. Overall, Chinese scholarship expresses an optimistic view on China’s possibility and capacity to rise peacefully, endorsing Zheng (2005).

While brief and not at all exhaustive, this summary of Western and Chinese academic views on China’s rise provides a useful background for observing the development of the debates around China’s role in global Internet governance.

3. China’s Rise and Global Internet Governance

This section provides an overview of China’s engagement with critical Internet resources governance, which is epitomical of multistakeholderism as a governance principle and the role of the US in the establishment of Internet governance in the way it is known nowadays (Radu, 2019; Negro, 2020; Mueller, 2017). Understanding how China positioned itself on the basic principles of global Internet governance through time – and how its position was perceived by non-Chinese observers – helps in the interpretation of Chinese actors’ role in the system. Following this overview, literature on the specific issue of Chinese actors’ engagement in mobile Internet standardisation is reviewed in context.

As it will emerge, international literature on China and global Internet governance has been widely Western during the first two decades following the foundation of ICANN. This does not mean that Chinese scholarship did not develop literature and theorisation, but that mainly Western authors featured internationally on high-impact journals on this topic. The whys and wherefores of this are

¹ The debate on the suitability of ‘rise’ and ‘development’ to describe China’s growing influence in the global order falls outside the scope of this paper. This paper will therefore adopt the ‘peaceful rise/development’ formulation drawing from Buzan (2014).

manifold (Acharya, 2019; Qin, 2018; Ren, 2020; Kristensen and Nielsen, 2013), but their discussion falls outside the scope of this paper. Nonetheless, the author maintains it is important to acknowledge this aspect as it affects one's perception of the topic and positionality.

In the early years of ICANN's stewardship over IPs and the DNS, established in 1998, China was seen by many as a staunch supporter of multilateralism, i.e. of a state-based Internet governance system opposed to the nascent multistakeholder one. Such system, in the view of multilateralists in the early 2000s, should have been headed by the UN International Telecommunication Union (ITU) (Leaffer, 1998). In this phase, China's main *casus belli* against ICANN was the latter's recognition of Taiwan as a member and the acceptance of '.tw' as a country-code Top Level Domain (ccTLD). This led to China's government's boycott of ICANN's conferences and Governmental Advisory Committee's (GAC) activities. Meanwhile, China and other countries from the developing world questioned the legitimacy of ICANN amid its formal relation to the US Department of Commerce, established through a memorandum of understanding (ICANN, 1999; Mueller, 2017; Glen, 2014; Hurel and Santoro Rocha, 2018). Between 2003 and 2005, the two rounds of the World Summit on the Information Society (WSIS), a UN-sponsored global multistakeholder forum, concluded with the adoption of the so-called 'Tunis Agenda' and the establishment of the multistakeholder policy forum known as the 'Internet Governance Forum'. Most importantly, the Tunis Agenda recognised multistakeholderism as a guiding principle of global Internet governance as provided by the Working Group on Internet Governance (WGIG) in its tentative definition of the term 'global Internet governance' itself (WGIG, 2005; ITU, 2015). Such working definition consolidated the existing multistakeholder governance system by stipulating that "Internet governance is the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet" (WGIG, 2005, p. 4). While the Tunis Agenda seemingly strengthened the global acceptance of multistakeholderism as a governance principle for the Internet, with the Chinese government suspending the ICANN boycott in 2009 (Creemers, 2020), the World Conference on International Telecommunications of 2012 (WCIT-12) reawakened the multilateralist-multistakeholderist divide. Held by the ITU to discuss and approve a revised version of the International Telecommunication Regulations (ITRs),² it concluded with a bloc of countries led by the US rejecting it on the basis that it would allow too strong a governmental intervention in the communication sectors (Schackelford and Craig, 2014). In this context, Glen (2014) identifies a threefold cleavage over multistakeholderism: the supporters of the existing system are identified as 'open multistakeholderists'; the middle of the spectrum is occupied by 'open multilateralists', supporters of a multilateral form of Internet governance that allows consultative and participatory space to non-state actors. Finally, at the other end of the spectrum lie 'repressive multilateralists', supporters of a strongly state-centric Internet governance system. China, together with Russia, was identified as one of the most outspoken members of this latter group. This led many to dub WCIT-12 as the 'Internet Yalta' (Klimburg, 2013), although this is disagreed upon by the global Internet governance scholarly community (Mueller, 2013). The following year, the PRISM scandal hit the US, with Snowden's revelations tarnishing the US's reputation and casting further doubts on the legitimacy of its exceptional role in Internet governance. This triggered the launch of the so-called 'IANA stewardship transition' by the second Obama administration, which

² ITRs "serve as the binding global treaty designed to facilitate international interconnection and interoperability of information and communication services" (ITU, 2020a).

made ICANN independent of the US government in 2016 – thus eliminating one of the main points of criticism against the organisation (Mueller, 2017). A recent article by Negro (2020) reveals China’s ambivalence in its participation in both the ITU and ICANN, the latter having become increasingly accepted and participated in by Chinese stakeholders.

In line with these findings, the post-IANA transition debate on China and multistakeholderism has become more nuanced. An extent of ambiguity is recognised by many and the duality of the early-2000s debate has faded (Mueller, 2017; Negro, 2020; Shen, 2016). Meanwhile, Chinese scholarship on the topic has become more prominent internationally, both from China-based Chinese scholars and from Chinese scholars abroad. As for the issue at stake, ambiguity in China’s stance towards multistakeholderism emerges from Chinese literature too. The role of Chinese private actors is extensively analysed by Shen (2016), who maintains that China has become more participatory and influential in technical standardisation activities through its private actors’ presence in multistakeholder fora. She also contributes to contextualising it in the broader Chinese foreign policy strategy, which currently runs under the label of ‘Belt and Road Initiative’ (BRI) or ‘One Belt One Road’ (OBOR) (一带一路 *yidai yilu*) (Shen, 2018). On the other hand, Cai (2018a) acknowledges the role of Chinese private actors in multistakeholder governance, but maintains the Chinese government is central. In her words, “[b]oth the multilateralism and multi-stakeholder approaches recognize the role of different actors in global cyber governance; their major difference lies in the positioning of those actors, particularly in who is to play a dominant role” (Cai, 2018a, p. 59). She underlines that China supports state centrality in Internet governance and defines this approach “multilateral pluralism based on cybersovereignty” (Cai, 2018b, p. 647).

To move back to the question of mobile Internet standards, the open question of China’s government’s control over private actors is still there. Attempt to study China’s policies in mobile Internet standardisation processes are very few at the academic level, despite 5G having drawn attention in politics and the media. Zhong (2019) and Pupillo (2019) both shed light on the complicated and un-transparent relation between the two, despite Huawei’s claims of preferring to shut down than to conduct espionage on Beijing’s behalf. To be sure, the fact that Chinese private actors have grown stronger has pushed China into further acceptance of the multistakeholder system, where its domestic companies play a major role in standardisation processes according to Shen (2016). Kim et al. (2020) observe China’s 5G standardisation policies through the lenses of techno-nationalism. To them, techno-nationalism “commonly features when developing countries start to drive technological catch-up and economic development” (Kim et al., 2020, p. 3) and entails state empowerment, growth orientation, and global connection. Through these lenses, Kim et al. (2020) see patterns of alliance between state, telco and operators (whether public or private) in an effort to create domestic technology and reduce import-dependence, while contributing to global standardisation as first movers rather than ‘catch-uppers’. While through a different theoretical lens, Tang (2019) reaffirms this view of government policy (which includes funds and R&D coordination) supporting the progressive ‘going out’, i.e. growth and expansion in the global market, of Chinese tech companies. This view is reaffirmed by Gong (2019), who underlines governmental recognition of the need to push international standardisation in order to achieve comparative advantage. Further Chinese literature on the topic is often concentrated on the policy implications of Huawei’s condition amid the US-China trade war (Ma, 2020), while Zhou (2019) observed Chinese tech companies’ internationalisation and relative growth until achieving a leading role in 5G standardisation. In this, Zhou (2019) sees in inter-sector research and development (R&D) the

source of such capacity, but the role of political relations remains unaddressed. To summarise, the question of political control over private companies remains unanswered and scholars within China and the West, different political situations notwithstanding, developed heterogeneous views. What emerges from Chinese and non-Chinese literature on Chinese engagement with standardisation is a strong state role, at least in policy coordination. Whether this translates as more engagement in multistakeholder governance (Shen, 2016), a form of ‘open multilateralism’ (Glen, 2014), or similarly ‘multilateral pluralism based on cybersovereignty’ (Cai, 2018b).

This brief reconstruction in no way gives justice to the complexity of the development of more than twenty years of Internet governance history. Nonetheless, it provides an explanatory overview of the techno-political dynamics at stake behind the most technical caveats of global Internet governance.

4. Theory and Concepts

Within the framework of this research, global Internet governance is conceived as a regime complex, i.e. a set of interrelated informal and formal arrangements for the management of specific Internet-related problems, in accordance with Nye’s (2014) definition. Nye (2014, p. 7) borrows from Keohane and Victor (2011) and defines a regime complex as a “loosely coupled set of regimes, [which in turn are subsets] of norms, which are shared expectations about appropriate behaviour.” In this context, norms “can be descriptive, prescriptive or both. They can also be institutionalized (or not) to varying degrees” and have a hierarchical coherence among them (Nye, 2014, p. 7), although hierarchy among institutions and norms is not always clear amid complexity (Alter and Raustiala, 2018). Briefly, Nye (2014) reformulates Krasner’s (1982, p. 186) canonical definition of regimes as “implicit or explicit principles, norms, rules and decision-making procedures around which actors’ expectations converge in a given area of international relations.” However, the difference between a regime and a regime complex is in the latter’s inner interdependence and intertwinement. In Alter and Raustiala’s (2018, p. 331) account, actors in a regime complex know that “decisions made in one forum can be influenced, revised, or undermined by decisions and politics within a parallel or overlapping domestic or international forum.” At the same time, as it emerges from interviews, actors involved in one subset of the regime complex are not necessarily fully aware of what goes on in other fora.

Following from this, this research adopts a cognitivist understanding of regime theory (Young, 1982; Puchala and Hopkins, 1982; Jönsson, 1993; Mueller et al., 2007) encompassing the role of non-state actors in the field of global Internet governance (Haas, 1993), coherently with the multistakeholder approach. As a starting point, Nye’s (2014) account of regime complexes provides useful descriptive tools. For example, TCP/IP (Transmission Control Protocol and Internet Protocol) has been elaborated at the IETF, while IP management is mainly conducted by ICANN. Mobile Internet standards are mainly (but not only) elaborated within 3GPP, which finally reports to the ITU. In turn, mobile Internet standards as we know them could not work without relying on TCP/IP. These bodies are autonomous and deal with different, albeit interconnected, Internet-related topics, coherently with the aforementioned definition of regime complex. On a more analytical level, Keohane and Victor’s (2011) appear not to fully problematize the creation and transformation of actors’ interests, although from Keohane’s previous work a static-interest, state-centric conception of regime theory emerges (Keohane, 1982; Keohane and Martin, 1995). To be sure, in Keohane and Victor (2011) non-state actors such as expert panels are taken into consideration as agents in the

climate change regime complex they analyse. Nonetheless, states remain the central unit of analysis. Nye (2014) draws instead conclusions from the three main perspectives known in regime theory, namely realist/structuralist, interest-based, and cognitivist.

Given the multistakeholder nature of global Internet governance, the private-based characterisation of the work of ICANN, IETF, and 3GPP, and the indubitable contribution of epistemic communities to the creation of the Internet (e.g. Jon Postel's de facto solitary IANA stewardship until 1998) (Mueller, 2017; Lemstra, 2017; Arkko, 2020), this paper adopts a multi-actor, i.e. multistakeholder, analytical approach. To be sure, states remain the most central actors in international relations. States' relevance appears in Internet governance too. After all, the US government played a central role in the creation of the Internet and in stewarding the establishment of the existing multistakeholder system (Leaffer, 1998; Mueller, 2017; Negro, 2018). Nonetheless, a workable theoretical model for activities falling in the Internet governance regime complex needs to account for private-based activities such as the standardisation of mobile connections and Internet's basic protocols. While a structuralist critique of multistakeholderism would arguably subsume non-state actors' actions into their national state's frame of interest, one of this research's aims it to observe whether governments' role has been enhanced by the increased presence of Chinese public and private actors in Internet governance. Therefore, no strong a priori assumptions on actors' dependency can be made. This is even more true in light of empirical data on private companies' activeness in both IETF and 3GPP illustrated in the next section. Coherently, this research maintains that non-state actors matter in regime creation, implementation, and survival (Haas, 1993; Mueller et al., 2007; Gallemore, 2017). Indeed, plenty of research on regime complexity or related topics, such as transnational polycentric governance (TPG), in the last decade recognises non-state actors role implicitly or explicitly. It is the case in Gallemore's (2017) study of environmental TPG and Alter and Raustiala's (2018) analysis of regime complexity. Furthermore, it is maintained in this article that the knowledge produced by epistemic communities shapes actors' – whether states, companies or otherwise – interests, which in turn shape regimes' form in a bidirectional dynamic relation between regimes and actors' interest (Haas, 1993), thus strengthening regimes' cognitivist element. Borrowing from Mueller et al. (2007, p. 242), “[r]egimes have considerable cognitive content. Regime principles may include scientific theories of causation recognized by actors in an issue area, or concepts of rectitude and standards of behavior defined in terms of rights and obligations.” The bi-directional relation between actors and the Internet regime complex is visible in post-IANA stewardship transition literature. Negro (2020) observes China's strategic adaptation to the existing regime, signalled by its gradual acceptance of ICANN and growing participation in it. On the other hand, the regime complex's adaptation to actors' pressure can be seen in the IANA stewardship transition itself. Literature finds that its launch in 2014 is intertwined to an extent with state and non-state actors' pressures on the US in the wake of Edward Snowden's revelation in 2013 (Mueller, 2014). For this reason, cognitivist regime theory is adopted, as it accounts for the bidirectional influence played by actors on regimes' rules, norms, and principles and vice-versa.

To summarise, this paper fits the analysis of China's influence in global Internet governance in the theoretical framework of regime theory, adopting a cognitivist theoretical approach in which actors' interests and regimes rules, norms, and principles shape each other bi-directionally. Given its scattered composition, the global Internet governance system is conceived as a regime complex. While acknowledging states' centrality in international relations in general, the importance of non-state actors in Internet governance must be acknowledged and theoretically accounted for. On a

final note, cognitivism seeks not to undermine the assumption of actors' rationality, which on the contrary emerges in the analysis below. It aims instead to complement this assumptions with the limits of rationality that are due to incomplete information on other actors' intentions and actions in other subsets of the regime complex (Jönsson, 1993).

5. Data, Methods, Concepts, and Ethical Considerations

Drawing from the theoretical framework described above, this project is based on qualitative semi-structured interviews with key informants, i.e. experts participating in ICANN, IETF and 3GPP. Qualitative semi-structured expert interviews have been chosen as a data generation method owing to the submerged nature of the phenomenon in question. While 3GPP and IETF documents are public, their content is most often unintelligible to non-participants. This makes it difficult for a researcher to build knowledge on the sole use of documents. Furthermore, this explains why participants to a forum or organisation are often not knowledgeable about the work of another. This makes it necessary to consider the influence of perceptions and lacks of information in the study of Internet governance, in conjunction with the quantitative data made available by the aforementioned bodies and, although to a partial extent, ICANN. Twenty-five research participants have been interviewed. Different participants expressed different feelings and requests in terms of being recorded and quoted. The use of information emerging from the interviews is done in accordance with the terms agreed upon during the interviews themselves. Each mention or quote has been agreed upon in advance with the participant. Owing to the restrictions related to the Covid-19 pandemic, all the interviews have been conducted remotely through Skype, Zoom, MS Teams, Google Meet, Jitsi, GoToMeeting, email (one) or telephone (two). It must be acknowledged that remote interviews do not allow researchers to fully appreciate all the subtleties of social interaction that emerge during in-person interviews, such as body language, especially when conducted with webcams off. Nevertheless, the very nature of this research project does not foresee discourse analysis, but interviews with key informants to gather information and perspectives otherwise inaccessible to non-participants to the processes under analysis. While acknowledging the limitations of online tools, remote interviews allow otherwise geographically unreachable participants to be involved, thus enhancing plurality and diversity. In this view, interviews have been proficiently conducted in light of the most recent methodological literature on remote interviews for qualitative research (Salmons, 2015; King, Horrocks and Brooks, 2019).

The key informants participating in this research are Chinese and non-Chinese (mostly Western) representatives of six Internet stakeholder communities: governments; international organisations; multinational enterprises; civil society; technical communities; and academia. This categorisation is drawn from DiploFoundation (2015) and adds 'academia' to the five categories often found in ICANN, Internet Society (ISOC), and UNESCO (UN Educational, Scientific and Cultural Organisation) institutional documents (UNESCO, 2019; Belkassam, 2015), as academics do not easily fit the other categories unless they carry governmental or business roles or hold strictly technical competences. To be sure, many taxonomies can be found in Internet governance literature (DeNardis and Raymond, 2013; NetMundial, 2014; WGIG, 2005). Each one underwent criticism from other literature sectors as categories of stakeholders were excluded or overlapped conceptually. For example, it is challenging to distinguish between the technical community and multinational enterprises when around 80% of the engineers participating in the Internet Engineering Task Force are employed by corporations (Belli, 2015). The global multistakeholder event held by the Brazilian government in the wake of the PRISM scandal, NetMundial (2014), proposed a six-fold distinction

among stakeholders: governments; the private sector; civil society; the technical community; the academic community; and users. While possibly more encompassing, this definition does not avoid conceptual overlapping inasmuch as ‘users’ could arguably fall under the category ‘civil society’ – after all, the latter’s purpose is to represent individuals (Belli, 2015). The 2005 definition enshrined in the Tunis Agenda provides instead a threefold distinction among stakeholders: governments; the private sector; and civil society. This categorisation, while parsimonious, leaves out academia and the members of the technical community not affiliated to any of the three categories. The six-fold categorisation adopted in this paper is chosen as a good compromise between inclusiveness and parsimony.

As for the involvement of mostly Western (i.e. from the EU and the US) non-Chinese stakeholders, it is due to the fact that the main non-Chinese actors involved in the processes under analysis are Western (Cisco, Nokia, Ericsson, and the US government among others). The possibility to include actors from other national/regional backgrounds systematically in the analysis to address, for instance, China’s relations to Latin American and African governments and stakeholders exists and would open the way to important analytical aspects, such as the role of China’s relations to developing countries within its broader foreign and digital-infrastructure policies. Nonetheless, it also risked expanding the scope of this research project beyond feasibility. It goes without saying that key informants from other geographical areas of the world have been involved when their expert position was deemed relevant within the scope and objectives of this research project.

Interviews are conducted on the basis of four working suppositions (two on CIRs governance; two on mobile Internet standardisation) that derive from two pieces of empirical evidence. The first piece of empirical evidence is China’s pre-eminence in 5G standardisation, expressed in terms of standard contributions presented by Chinese actors-affiliated experts at 3GPP (Pohlmann et al., 2020). In particular, Huawei Technologies emerges as the single most important proponent of standard contributions in absolute quantitative terms by the beginning of 2020 (26,372 by January, 1st 2020). For the sake of completeness, it must be underlined that at the same time in the year Ericsson overcame Huawei Technologies in weighted terms (20,087 vs. 16,094). However, the latter was the single actor with the highest number of approved standard contribution (6,246) (Pohlmann et al., 2020, pp. 25-26).

The second piece of empirical evidence is Chinese actors’ relative growth in contribution to the IETF’s activity. The number of Chinese authors contributing to Requests for Comments (RFCs) and Internet Drafts sharply increased between 2007 and 2010, then remaining relatively steady at 2010 levels thereafter. By 2019, while on aggregate Chinese actors lag behind both EU and US nationals in these terms, both EU and US contributors have declined in number in the last decade, while China’s figure has remained steady (IETF, 2020). Furthermore, Huawei and Huawei Technologies, together, are second most important actors in terms of ‘active authors’ (around 190), slightly behind the US company Cisco (around 210), who is however on a declining trend since 2014 (IETF, 2020). To this, it must be added that China grew in both absolute and percentage values when it comes to RFCs presented to the IETF, as around 9% of the total share of RFCs presented in the first half of 2020 come from Chinese nationals. In terms of single corporate actors, Huawei is the second most proficient actor behind Cisco, having presented around 19% of the RFCs presented in the first half of 2020 compared to Cisco’s 29% (Arkko, 2020). To be clear, company-affiliation figures are more relevant to this article’s analysis as US or Chinese nationals do not necessarily work for domestic

companies. Nonetheless, it is interesting to notice that the sharp increase in Huawei contribution and in the number of Chinese document authors both started in 2007 (IETF, 2020; Arkko, 2020).

On the basis of this empirical evidence, the aforementioned four working suppositions are the following. As far as mobile Internet standards are concerned: (i) Chinese-elaborated standards on 3G, 4G, and 5G are competing (i.e. not coexisting) with EU and US ones; and (ii) governments and government-controlled actors' influence in global technical standardisation processes has increased and China has contributed to it. Regarding CIRs: (iii) China's re-accession to ICANN GAC has increased governmental influence on IPs and DNS root management; and (iv) China's increased participation in the IETF has enhanced the likelihood of separate (i.e. coexisting, not competing) Internet standards being created. Here, 'coexisting standard' refers to a specification that is separate from and incompatible with the universal one, while 'competing standard' refers to one that is aimed at becoming universal, thus not 'coexistent' with a separate, incompatible one.

Such working suppositions serve as a background for interviews, which in turn will serve to interpretively confirm, re-elaborate, or disconfirm them. In line with the qualitative research tradition, these suppositions have been constantly reassessed and re-elaborated throughout the research project.

On a practical note, 3GPP data on technical documents (TDoc) are public as the IETF's. However, while the IETF – and its former chair Jari Arkko for it – periodically systematises its data, 3GPP material is available in the form of per-meeting list of TDoc or in a more scattered form linked to single work items on their website. Given the complete systematisation conducted by Pohlmann et al. (2020) with reference to the situation at 1st January 2020, this research relies on it for quantitative data on 5G standardisation processes.

6. Empirical Research and Findings

Twenty-five key informants have been interviewed between mid-March and August 2020, in a total of twenty-three interviews (two of these involved two participants together, while the others were held individually) conducted within the doctoral project mentioned in the introduction. QDA Miner Lite is used for coding. The interviewees involved so far represent the six stakeholder communities as conceptualised in the previous section. In that view, ICANN, despite being formally a private entity, is categorised as an international organisation owing to the function it performs and its multistakeholder nature. ICANN members of staff have thus been interviewed because of their work in an international organisation, while representatives of stakeholders participating in ICANN (e.g. governments participating in ICANN GAC) have been interviewed as representatives of their stakeholder community. To be clear, the term 'representative' here does not imply participants were talking on behalf of their community, but refers simply to participants' individual stakeholder membership. The following profiles have participated in interviews: four governmental representatives (all from Europe and Latin America); five members of staff of international organisations, including ICANN (two from Europe, two from China, one the broader Asia-Pacific region); five members of staff from the business sector (telcos, infrastructure manufacturers, and market verticals: four from Europe, one from China); four members of civil society organisations (all from Europe); two members of the technical community (telecommunication engineers working as independent consultants); and five academicians (four Western, one Chinese).

What emerged in light of the four working suppositions and the interviews conducted and analysed so far, can be summarised as follows.

6.1 On mobile Internet standards

To start with, as it emerges from quantitative data as well as interviews, China aims at shaping universal mobile Internet standards (5G), not at creating alternative ones. In historical perspective, as it emerges from my interviews with experts (including Chinese and non-Chinese companies-affiliated telecommunication engineers, as well as an independent consultant familiar with the work of 3GPP), China adopted its own domestic 3G standard in the early 2000s. When it came to 4G technologies, China adopted both the universal standard and a local one, allowing one or another operator to provide mobile Internet services using one or the other specification. However this option was unsuccessful to promote the globalisation of Chinese technologies. Now, as it also appears from Pohlmann et al. (2020), Chinese actors aim at being one of the key standard-setters in 5G and, as it emerged so far from interviews, they display no intention of elaborating local specifications incompatible with the global ones. In terms of public policy, Huawei reinforces this view by stressing its activeness in global standard-making (Huawei, 2020). In an interview with the author, a senior Huawei-affiliated telecommunication engineer underlined that around 14% of Huawei's capital and 50% of the company's human resources are invested in research and development (R&D). To this participant, this strategy is aimed at enhancing the company's capacity to create and promote global standards, a fundamental element to gain a strong position in the market. Furthermore, this research participant agrees that the existence of multiple, coexisting, 3G mobile Internet standards has been detrimental to the development of the global market and thus to companies' – including Huawei's – interests, reason why they are now striving to elaborate a global 5G standard. Telecommunication engineers not affiliated to Huawei tend to confirm this view. Among them, a former chair of a 3GPP working group and a 5G application expert add that no tendency towards fragmenting the work of 3GPP appear to come from China, where Huawei is currently the top 5G standardisation contributor in quantitative terms, followed by Ericsson. Briefly, a deeper insight below the surface of public policy shows therefore that Huawei is a major rule-maker in 5G standardisation and there's no intention from China to elaborate a separate, incompatible national 5G specification.

However, beyond the network infrastructure, questions remain open about Huawei's device- and application-level compatibility. The US ban on Huawei's use of Google services makes this issue increasingly relevant from a political point of view. To be clear, this falls outside this article's scope and its author's expertise. Furthermore, academic analysis on these aspect is sparse and mostly speculative, arguably due to the novelty of the issue at stake, which emerged powerfully in 2018 within the framework of the US-China trade war. This question is also evolving constantly, possibly due to its strong party-politicisation in the US (Jiang, 2019; Hosain, 2019; Ciuriak, 2019). Nonetheless, a few clarifying words are worth spending, as this issue connects directly to the paragraph above. To start with, it must be underlined that Android is an open-source operating system, which means that the US government could only ban the use of Google's Mobile Services (GMS) core part (Sin, 2020). As Sin (2020) explains,

[GMS] are a collection of services with special APIs (application programme interfaces) designed by Google to allow for easy adoption by third-party developers. The services mostly cover Google's cloud ecosystem, such as Google Drive and Docs, as well as

YouTube and the Google Play Store. Other Google apps that fall outside this umbrella, such as Google Maps and Chrome, work perfectly fine on a Huawei device. In fact, Gmail and Google Calendar work too, but only through third-party apps such as Microsoft's Outlook.

Furthermore, with the launch of Huawei's GMS equivalent, i.e. Huawei Mobile Services (HMS), and the operating system HarmonyOS, Huawei seeks to provide a fully-fledged alternative to the GMS's core part while allowing its users and customers to use the same services and platforms available through Google services (e.g. Play Store) (Doffman, 2020). For services and platforms present on GMS but still not accessible from Huawei devices, the block seems to be porous, as several mirroring systems have been made available to access them (Sin, 2020).

To summarise, Chinese companies' activities in mobile Internet standardisation processes grew in time and became more influential. Participation and influence grew together: as the capacity of Chinese stakeholders to influence standard-making grew, their interest in shaping global standards and avoid local incompatible specification grew as well. Nowadays, Chinese actors' stance in 5G standard-making is in line with the first working supposition, although on 3G China opted for coexisting standards. It goes without saying that the need for a growing company to expand its market is an essential driver of the aforementioned actions, as it emerged throughout interviews. However, it must be acknowledged that no clear findings on state control over Huawei and other private Chinese companies have emerged yet, beyond suspicions related to the authoritarian nature of the Chinese governments. Therefore, the second working supposition will need further corroboration in the forthcoming research steps. Furthermore, beyond network standardisation, matters of compatibility remain relevant, especially in connection to the debate on the non-technical fragmentation of the Internet. This latter aspect is better addressed below in subsection 6.2.

6.2 On critical Internet resources

Moving forward to critical Internet resources governance, China appears more participatory and influential, particularly so in the IETF. As for ICANN, its activities are less straightforward to systematise. This problem was previously raised by Negro (2018) and Galloway (2015), but the interviews conducted within this research's framework provided more clarity. To begin with, China appears more participatory and influential in critical Internet resources governance – more so in the IETF than in ICANN. Nonetheless, while Chinese actors participate in ICANN, acknowledge and rhetorically support its role, the Chinese government and China's national stakeholders keep investing and strengthening their national position in the ITU (Negro, 2020). From an interview conducted with a Chinese ICANN staff member, while observing China's increasingly active participation in ICANN, it emerges that Chinese stakeholders' activities in ICANN have not become particularly prominent with regard to policy-making. This probably results from the more complex ecosystem and China's later involvement in ICANN. Furthermore, in an interview with the author, an academician familiar with the internal work of ICANN underlined specific rhetorical aspects that hint at China's growing engagement and acceptance of ICANN at the apex of the IP and DNS governance system. In this participant's view, while China maintained a low profile throughout the IANA stewardship transition, it significantly provided public endorsement to ICANN and multistakeholderism through a speech by the then Minister for cyberspace Lu Wei at ICANN50, a global event held in London in 2014, at the very beginning of the IANA stewardship transition. Furthermore, short after the completion of the process in late 2016, China's governmental representative Guo Feng became vice-chair of the GAC. While observing no major

growth in terms of strength of Chinese actors in ICANN in recent years, this participant finds that these episodes signal growing acceptance of ICANN by the Chinese Internet community, as further demonstrated by an intra-ICANN survey conducted by Jongen and Scholte (forthcoming). Briefly, China's relationship to ICANN has surely improved throughout time, evolving from straight confrontation in the early 2000s to minister Lu Wei's endorsement of ICANN and Guo Feng's vice-presidency of GAC. To this, engagement on internationalised domain names (IDNs) must be added (Zhang, 2019). Nonetheless, China's engagement in the ITU has grown, with Zhao Houlin obtaining the position of Secretary General in 2014 and Chinese stakeholders presence in Study Groups growing considerably. This emerges first-hand from ITU data as well as at the public level in Chinese representatives' statements (ITU, 2020b; ITU News, 2018). This was further stressed by both research participants from European academia and telecommunication experts not affiliated to Chinese entities.

To be sure, dual engagement in ICANN and the ITU does not constitute per se an element of ambiguity. As per section 4, subsets of the Internet regime complex are, by definition, complementary. For example, no 5G technology could exist without relying – at least partially – on TCP/IP. Nonetheless, Chinese activities in the ITU are deemed sensitive as this body was endorsed by China to take over ICANN's functions in the early years of the latter's activity (see section 3). Furthermore, the fact that Huawei presented the so-called 'New IP', potentially replacing or subsuming TCP/IP (Murgia and Gross, 2020; Sharp and Kolkman, 2020), to the ITU, i.e. a state-centric UN agency, rather than the IETF, i.e. a private-based standardisation organisation and traditional 'house' of TCP/IP, may hint at a potential resurgence of China's multilateral stances. In addition, it must be noticed that the 'New IP' proposal was presented in collaboration with the Ministry of Industry and Information Technology (MIIT), among others (Sharp and Kolkman, 2020). Briefly, as far as the potential for the Internet to fragment is concerned, research participants generally find no hard evidence of Chinese attempts to do so at the technical level. More often, they tend to see potential consequences for the multistakeholder system, especially owing to the ITU's state-centric nature and the 'New IP' proposal is often quoted as an example. Nonetheless, it must be stressed that any analysis around the 'New IP' is still speculative as its development is still embryotic (Mueller, 2020). While Murgia and Gross (2020) raise concerns over Chinese attempts to reshape (and fragment?) the Internet, it must be stressed that the replacement of TCP/IP, or better, the creation of new application networks not based on IPs, has been under discussion for decades owing to the shortcomings the protocol suite is showing in the rollout of new technologies. The European Telecommunications Standards Institute (ETSI), for example, has established a working group specialised in the development of standards for non-IP networks (NIN) specifically addressed to 5G technology (ETSI, 2020). According to ETSI's (2020) official website,

[i]n 2015, several mobile operators identified problems with the TCP/IP-based technology used in 4G. These included the complex and inefficient use of spectrum resulting from adding mobility, security, quality-of-service, and other features to a protocol that was never designed for them. The subsequent fixes and workarounds designed to overcome these problems themselves incur increased cost, latency, and greater power-consumption. TCP/IP was therefore deemed as non-optimal for the more advanced 5G services.

Briefly, while NIN and the 'New IP' will not necessarily have similar characteristics and follow the same objectives, it appears that questions related to the suitability of TCP/IP for new Internet-enabled technology have been on-going in the technical community on both sides of the East-West

geopolitical divide. As far as the potential replacement of TCP/IP in the near future is concerned, it must be acknowledged that the existence of different, technically incompatible basic protocols is not new to the Internet environment. The introduction of IP version 6 (IPv6) is exemplary: its elaboration started in the 1995 amid concerns that IP version 4 (IPv4) would exhaust its address space (IANA, 2019). As DeNardis (2014) illustrates, IPv4 encompassed a total of 2^{32} IP addresses, i.e. around 4.3 billion. Instead, IPv6 has a total of 2^{128} (a number with eleven zeros) addresses. The assignation of the last address available in the IPv4 space by ICANN to a Regional Internet Registry (RIR) took place in 2011 (ICANN, 2020). A few years before that, the development and implementation of IPv6 was accelerated, with a strong Chinese contribution as well (Wu et al., 2011). Despite the fact that the complete replacement of IPv4 with full-IPv6 networks is nowhere in sight, the two IP versions have been made fully interoperable through several technical precautions despite them being backward-incompatible (Réseaux IP Européens Network Coordination Centre, 2020; hereafter RIPE NCC). Users seldom know what IP version is attributed to their network-connected devices and to the devices they are interacting with. To be sure, the potential for the ‘New IP’ to be more disruptive than IPv6, in normative terms as well as in terms of technical fragmentation, has been pinpointed by some research participants from academia, the technical community, and governmental institutions. In fact, however, few find it likely that the New IP will be unable to communicate with IP-enabled network-connected devices. The dominant position Huawei – and consequently China as a state – has achieved in 5G technology at the global level would suggest it is not in its interest to promote a non-interoperable basic protocol as this would arguably create major transaction costs on the device market, as devices aimed at different markets would need to be programmed to work through different protocols in different countries or area of the world. This point of view was raised by most research participants and finds theoretical support in economic and regime-theoretic literature on transaction costs (Alter and Raustiala, 2018; Gallemore, 2017). At the normative level, as mentioned above in this paragraph, doubts and concern remain amid the fact that the IETF has not been involved in the process, while the ITU has, on a proposal that carries ‘IP’ in its name. While Huawei and its affiliates stress the universality-oriented nature of their effort (Li, 2020), exponents of ISOC express reservations on this choice (Sharp and Kolkman, 2020).

In historical terms, China’s multilateralist stance has spiked following the recognition of the ‘.tw’ ccTLD in 2001 and, again, in 2012 after WCIT-12 (see section 3), but multistakeholderism has always been acknowledged short after these turning points: with China adhering to the WSIS process in 2003-2005, re-joining GAC/ICANN in 2009, participating to NetMundial in 2014, and increasing participation and representation in ICANN after the IANA stewardship transition as illustrated above in this section.

To conclude on this matter, no hard evidence of technical fragmentation attempts emerged from China’s part, although suspicions remain. Overall, the fourth working supposition illustrated in section 5 appears wrong in light of these findings. However, ambiguity remains in its relation to ICANN and ITU. While the third working supposition appears wrong according to these findings, as China’s reaccessions in GAC has not increased tangibly state-centricity in most participants’ view, China remains a growing state actor with an ambiguous power relation to its domestic private sector, which features some of the world-leading tech companies in 3GPP and IETF activity – thus leaving the question of increased governmental influence in multistakeholder Internet governance open.

Surely, doubts around fragmentation have not faded either: if fragmentation is conceived not at the technical layer, but in terms of users basins, platforms, and potentially languages, a more fragmented picture of the Internet emerges. After all, a big share of WeChat (微信 weixin) users are Chinese or have connections in China, while most Europeans living in Europe prefer to communicate through the Facebook-owned WhatsApp, which is in turn inaccessible in China without a Virtual Private Network (VPN) (Statista, 2020). To summarise, fragmentation can be both a technical and a (techno)social phenomenon. Speculations on current issues (e.g. the ‘New IP’) apart, evidence generated by research participants does not generally suggest China seeks to split the Internet. On the contrary, the size of its domestic ‘tech champions’ and their capacity to shape universal standards suggests no interest in fragmenting mobile Internet standardisation nor the Internet as a whole at the technical level. Rather, drawing from Mueller (2017), user- and platform-level fragmentation can be conceived as a form of ‘alignment’, i.e. an attempt by China’s government to control the information flux within its borders and among its citizenry through the use of separate, arguably more controllable platforms, while being fully part of the global Internet at the technical level and enjoying network benefits as argued above in this section.

Finally, to contribute to IR Theory, the idea that the Liberal International Order can allow emerging powers like China to become global powers within the existing order seems to hold. After all, Chinese actors have risen among the main global standard-setters on mobile Internet standards within 3GPP, established at the end of the 1990s by ETSI and its Japanese counterpart, within seeking (nor needing) to create an alternative body. While being reflected in quantitative data, this view is also broadly confirmed by most research participants familiar with 3GPP, both those affiliated to Chinese entities and those who are not. None of them could identify normative aspects of standard-making procedures having been challenged or changed by Chinese actors. To the contrary, they all underline they grew stronger within the existing rule framework. As for CIRs, China is increasingly more participatory and influential within the IETF and has abandoned its staunchest positions against ICANN as it grew more powerful, albeit remaining ambiguously related to the ITU. Furthermore, it must underlined that no parallel, complementary decision-making organisations (whether formal or not) have been established regionally nor globally under China’s leadership. At this stage, given the data generated and the information available to the research participants, evidence points at China’s increased involvement and acceptance of the existing multistakeholder system.

7. Discussion: Strengths, Weaknesses, and Caveats

This research was conducted interviewing Chinese and non-Chinese (mainly Western) experts from six Internet stakeholder communities. Access to this heterogeneous expertise allows a multifaceted interpretation of Chinese actors’ influence in mobile Internet standards and critical Internet resources. Having conducted qualitative semi-structured interviews in light of fully accessible quantitative data from both the IETF and 3GPP allowed assumptions and suppositions to be made in advance and provided support to the interpretive process by helping the triangulation of interview findings. Being the subsets of Internet governance in question interrelated with great power dynamics, as technological supremacy has long been linked to US hegemony (Winseck, 2019), it can be safely argued that this research’s methods, concepts, and findings are potentially transferable to other fields of inquiry involving superpower dynamics and public-private power relations.

Nonetheless, a few more caveats need be made explicit. To start with, Chinese stakeholders in this field currently find themselves in the ‘eye of the storm’, thus their representatives appear less open to talking than some of their Western counterparts. It can be argued that China being an authoritarian state increases reluctance to accept interviews. To be fair, however, Huawei’s main competitors in the 5G standardisation process have not proven more accessible owing to the sensitivity of the topic in question. Finally, it must be acknowledged that a white European researcher may, whether consciously or not, constitute a potentially threatening inquirer for Chinese participants, owing to the strong East-West divide along which the political questions at stake in this research run. This directly connects to the problem of ‘Digital Orientalism’ (Morozov, 2011), according to which Western pundits tend to see happening in the Chinese cyberspace what they do not want to see happening in the countries they are from. Surely, matters of perceptions and positionality always affect the generation of data and must be acknowledged. Therefore, as a white European researcher addressing the actions of actors coming from such a different cultural, social, and political background as China’s, the problem of Digital Orientalism is at stake and has been born in mind in every step of the research. Finally, doubts about the extent to which Chinese non-state actors are politically controlled are still unanswered (Zhong, 2019; Pupillo, 2019). Since the Chinese government is authoritarian, it is safe to assume that it holds a powerful position in relation to the private sector in its capacity to impose restrictions and control on political grounds. Nevertheless, considering the strategic importance of tech giants, it could be argued that they are in the position to shape the government’s interest and policies to an extent. This unknown must be taken into account in the framework of this research and deeper insights in China’s domestic politics could shed some light (Negro, 2017). However, this would expand the reach of this research project beyond feasibility and potentially shift the focus from IR theory.

Summarising, bearing in mind one’s positionality and the limitations deriving from acceding a strongly technical field where geopolitics intertwines powerfully, this research interprets the role of Chinese actors in two subsets of global Internet governance rejecting dualistic views and shedding light on otherwise submerged techno-political processes. Methodologically and theoretically, it opens the way to further research in other Internet-related fields of inquiry, from further global Internet governance issues to the securitisation of the Internet, as well as other techno-political domains. Surely, further paths of inquiry could be experimented, such as analysing the content of meetings and mailing list exchanges. Within this research, the use of interviews was preferred as a means to dig into first-hand knowledge from participant. In particular, this was done to contribute to the inclusion of technologists’ views in political and diplomatic analysis, an aspect that has only recently been obtaining recognition in the literature owing to the powerful role technical experts can play in navigating strongly politicised domains of science diplomacy (Tanczer et al., 2018).

8. Conclusions

In conclusion, it appears so far that, despite ambiguities, China and its domestic actors have become increasingly involved in the existing multistakeholder system: they have increasingly acknowledged and adopted universal standards and contributed to their making. In IR-theoretical terms, Chinese actors have grown within the existing Internet governance regime complex, transformed the balance of power within it by growing to a hegemonic position but did not change its rules, norms, and principles so far, as no new regimes, organisations, nor separate technical standards have been established. Borrowing from Ikenberry (2008, 2011, 2018), the Liberal International Order has integrated China and allowed it to grow as a great power from within, thus arguably eliminating any

potential interest in replacing the existing international order. However, it must be acknowledged that conclusion on China's engagement in global Internet governance may not be immediately generalizable at the systemic level.

As for Chinese governmental presence in broader global Internet governance, it is acknowledged as powerful by most research participants. However, multistakeholder governance remains private-based and the extent to which the Chinese government can influence domestic companies' actions is unclear. Surely, different assumptions on this latter point may lead to different conclusion on the extent to which China's action has increased states' influence in multistakeholder governance. Nonetheless, literature and research participants disagree on the extent to which governments have become more powerful in multistakeholder fora (Mueller and Badiei, 2017).

As mentioned in the previous section, further aspects can be analysed as far as the extent and layers of fragmentation are concerned and as far as formal and informal state influence has increased, albeit within the existing Internet governance regime complex. In 2017, it was reported that around 70% of the private companies established in China had internal Party organisations. While their role has largely been deemed symbolic, concerns have been raised by foreign companies investing in China and Western media about increased state influence in companies' internal decision-making (Martina, 2017; Russo, 2019). Given the recent, scattered and oftentimes politicised nature of these pieces of news, analysis is complicated. Should it become more viable in time, this would help fade further doubts on the role of the Chinese government in multistakeholder Internet governance. Towards this, a stronger insight in Chinese domestic policy would be useful (Negro, 2017).

Open questions aside, this article sheds light on the positions, roles, and drivers Chinese actors in two politically relevant subsets of Internet governance taking into account actors' diversity in composition and interests, including technical perspectives that go too often unnoticed, and opening the way to similar analyses in other sectors of Internet governance and beyond.

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