Session Sketch

Techno-nationalism in the Age of the Fourth Industrial Revolution

Session Five

Introduction

As technological developments transform our societies and economies, the issue of techno-nationalism is growing in importance. Technology and its development do not operate within a traditional economic market structure, as the first-mover advantage is significant. Because of the first-mover advantage, we are seeing competition grow between big powers to develop and adopt AI, automation, biotechnology, biopharmaceuticals, and other transformative technologies rapidly. Big power players are also competing to acquire market share within developing countries. Developing countries must make a choice between allowing one big power to become dominant within their markets, and playing the big powers off of one another. Owing to the nature of techno-nationalism and its strong linkage to national security, there are growing concerns surrounding privacy, data use, and surveillance that must be addressed as well. In this session, panelists offer different perspectives from both developed and developing countries on the impact that techno-nationalism will have on both the great power rivalry between the US and China as well as how to mitigate or use this competition to their own advantage.

Opening Comments:

Techno-nationalism is shaping economics and geopolitics. I'd like to propose a framework for this session with several questions. Let's forget about nation states and major power rivalries. The basic problem is we have a host of new technologies hitting US and it will continue over the next few decades. We need to think about the impact of new technology on our societies. We have some fundamental challenges coming up. There is the obvious automation and AI, which brings up the problem of jobs, the role of humans, the dignity of working, privacy, and surveillance. We will have to deal with biotech and synthetic biology as we figure out gradually how to have longer lives, better lives, and enhanced lives. We need to decide how to deal with the distribution of that technology because it will be the ultimate inequality. We have blockchain coming up. The core function of administrative state is trust, and it is possible that we will simply delegate that trust function to the blockchain. These are all issues about the impact of technology on societies that we will need to deal with.

Now on top of that, we bring in international politics. We can assume this will just be purely an economic competition, that there is value to be created, that it will be open and nation states will try to get their piece. Alternatively, we can think of it as not really an open simple competition, but a competition where the first mover ad-

vantage is hugely important. If you get into AI first, you will control and reap the benefits of that whole industry globally. Normally, under pure competition and decreasing returns models, we don't have that problem. But if the first mover has an advantage, which in technology it does, techno-nationalism comes to the fore.

Then you go one step further. The fact that you can control or be a leader in a technical area starts giving you a major security advantage. In terms of military and security, it gives you an edge. The stakes are even higher now for getting that technology and being a leader in that technology, which feeds a further urge for techno-nationalism.

So the problem when we look at this new technology is, how do we perceive it? Do we perceive it as the old technology where you can compete, where systems like the WTO and trade agreements work, or is there something structural happening and we all want to make sure when a new structure emerges we want to be leading it in some way, particularly China and the US in this case? That seems to be the key problem. There are pure technology impact issues, and that interacts with global politics.

If this is indeed the case, the final issue is given the kind of nation you are and the role you have in the world, how will you deal with it? If you are the US, the leading player, you would like to maintain your lead. If you are a nation or a group of nations that benefit from the open system but are not really the leader, you would prefer the open system to continue, but with multilateralism so that you have a say. But if push comes to shove and you have to choose between the open system and multilateralism, then one might go for the open system over multilateralism. If you're a developing nation you might say there's competition, there's techno-nationalism, and probably the big players will compete for your agenda and your interests, so you may play the different sides, or you might gradually become a client state.

That is broadly how I put these three pieces together. The three papers we have today address different aspects of this broad agenda. The first paper says we need to maximize benefits and minimize harms of new technologies. The author recognizes that the benefits of these technologies will probably accrue to developed countries more than developing countries, that there are problems there, and has faith in global cooperation and international institutions in making sure that developing nations get equal access to technology.

The question and the problem I have is that it seems the export-based growth model is disappearing, and so a problem is emerging for developing economies. There is the possibility of what is called "trickle-down technology," which is possible, but realistically going forward in the context of all these technologies do you see developing nations to benefit sufficiently from these developments and do you think international governance institutions can deliver the gap? Or if this big power rivalry is the new reality, do you think the best bet for these countries is to compete for the interest and funding from the big players? Is that a better strategy, or should we trust international institutions to make sure that everyone benefits equally?

Presentations

1) Presentation 1

The Fourth Industrial Revolution is already reshaping people's lives and will continue to do so dramatically in the near future. These changes affect not only national economies worldwide—by redefining the way people produce, consume, and trade—but also human societies. These changes have profound implications for human lives and interactions across countries and within national borders, and for relations between individuals and between citizens and states.

One of the most salient characteristics of this revolution is the speed and scope of its propagation, which is unlike that of anything previous. In the past, the success of a particular product and its propagation depended on its production function, advertising, transport, and proximity to large markets. Nowadays, the interface between the physical and the digital is making traditional models obsolete. Connectivity, speed, artificial intelligence (AI), three-dimensional (3-D) printing, and the Internet of Things are only a few aspects that define people's lives now. It took industries such as airlines and automobiles more than sixty years to reach fifty million users; it took computers and mobile phones less than fifteen years. It took the internet, Facebook, and WeChat only seven, four, and one respectively. Some online games take only several weeks to reach this benchmark.[1] This speed will keep increasing and will have serious repercussions on global economic growth.

Without a doubt, the Fourth Industrial Revolution has the potential to simplify lives. The decrease in production, transaction, and transport costs will result in significant productivity and efficiency gains. In addition, enhanced access to products and services will improve and facilitate the quality of life for consumers.

Several risks are associated with this process, however. One of the most salient is the disruption to labor markets and resulting increase in inequalities across and within countries, which leads to several governance challenges. The effects on labor markets will be twofold. On the one hand, the replacement of low-skilled labor by AI will be significant, and the resulting increase in domestic social tensions will be an important issue. On the other hand, because remote work covers a much broader range of industries and because skilled workers can be located anywhere, labor opportunities will converge where skills and talent are present. These, in turn, will be centered where education is. Education, innovation, and research and development will therefore become the drivers of growth and prosperity. The consequences of an unequal distribution of skills, both within countries and across borders, and the resulting social tensions will be a huge challenge for decades to come. Moreover, unequal distribution of technology and technological literacy and skills will reshape global trade as well, yielding clear winners and losers and determining access to markets and international insertion.

Analyzing the global workforce trends is therefore critical. But just as important—if not more so—is anticipating these changes and creating jobs for the future that will minimize the harmful consequences on employment and ameliorate social tensions.

Techno-nationalism on the Rise

Over the last decade, nationalism across the world has been on the rise, increasingly affecting trade and politics, particularly in the developed world. The continuous and rapid expansion of AI and new technologies will continue to accentuate this trend and reshape citizen-government and government-government relationships. On the one hand, enhanced public information and monitoring will force governments to become more accountable for their actions, which could lead to an increase in government competitiveness, transparency, and efficiency. On the other, governments will have more information about their people not only through surveillance but also through digital infrastructure and technological power.

Today, huge databases of valuable information are used globally. Aadhaar in India, for example, has been the world's largest personal database since it was created a decade ago, storing the biometric data of more than one billion people. The global spread of closed-circuit television surveillance and data collection is another example.

[1] Jeff Desjardins, "How Long Does It Take to Hit 50 Million Users," Visual Capitalist, June 18, 2018, http://visualcapitalist.com/how-long-does-it-take-to-hit-50-million-users.

The United Kingdom alone reportedly has one camera per fourteen people, the highest rate in the world. As recently as September 13, 2018, the European Court of Human Rights ruled that the UK surveillance system was unlawful. In China, the combination of big data collection and facial recognition will result in a fully operational social credit system by 2020.

These systems are intended to make people safer, combat terrorism, deliver transparency, and help people access social and economic benefits. Concerns are growing, however, about the appropriateness and potential misuse—by either domestic or foreign actors—of the detailed information they include. The recent Facebook and Cambridge Analytica scandals and even more recent alleged hacking in early September 2018 into the Aadhaar database are cases in point. These issues have profound implications for both national and international security. Redefining and regulating data collection, privacy, and use of personal information is therefore paramount.

The increase in concerns related to new technologies gives rise to techno-nationalism, which, as more advanced technology proliferates, could become more acute. China currently has the most numerous internet users—more than eight hundred million—and is a world leader in AI, mobile payments, and e-commerce. Since its 2015 launch, the Made in China 2025 campaign has focused on the development of several strategic industries to bring its high-tech sector into line with those of countries such as South Korea, Japan, and the United States to end its reliance on foreign technology. This program has not been well received by other countries. The United States and the European Union in particular have increasing geopolitical and economics concerns. The ensuing trade war between China and the United States is an example, being not merely about tariffs and trade but primarily about the ownership of future technologies.

In August 2018, Australia and the United States each struck a major blow to Chinese technology companies. Australia banned Huawei from supplying equipment for its domestic 5G mobile market. The United States—as part of its Defense Authorization Act—banned U.S. government agencies from using certain components and services from Chinese companies such as Huawei and ZTE, among others. Australia, whose largest trading partner is China, used national security risks to justify its ban. In the United States, a House Intelligence Committee report had already considered both Huawei and ZTE to be national security threats. Given the current global trends, an increase in nationalism is thus expected in the near future.

Implications for Cooperation and the Developing World

The Fourth Industrial Revolution will bring increases in efficiency, productivity, and quality of life. Most of the benefits, however, will be in the most developed parts of the world. Less-developed areas will continue to be more vulnerable and to have a great deal to lose if challenges are not addressed promptly. Unless action is taken, the gap between the haves and the have-nots will widen. Social tensions will increase, steering countries away from multilateralism and cooperation and toward nationalism.

On the one hand, the even spread of technology and infrastructure is critical to guaranteeing accessibility. However, access is not the only requirement, given that access\ without technological literacy is pointless. Continuous training following rapid advancements is also essential. In addition, investment in education in less-developed areas will be required to tackle the disruption of labor markets and the migration of jobs to higher-skilled and higher-educated places. National governments alone will not be able to handle these challenges. Finally, issues of privacy and data management will be a primary concern. Governments and multilateral cooperation need to anticipate problems, not simply address them as they arise.

For all the benefits the Fourth Industrial Revolution will undoubtedly bring, the challenges remain. Technology will continue to have a bigger role in people's lives, but it cannot take over, and people's welfare should be first. Perhaps the words of Charles Dickens are as fitting and ominous today as they were during the second industrial revolution a century and a half ago.[2] For many people; the Fourth Industrial Revolution signifies hope and endless possibilities. For others, it might imply despair and the lack of possibilities. It is up to collective action to shape the future so that it benefits all, making the most of the opportunities to achieve sustainable development.

Recommendations for Mitigating the Harmful Consequences

- The anticipation, early detection, and plans for global labor gains and losses from the Fourth Industrial Revolution are essential to staying ahead of the game. In this challenge, the role of think tanks around the world is crucial in identifying trends, challenges, and opportunities for action.
- International cooperation, collaboration, and solidarity need to be central to spread benefits and minimize losses by having a truly worldwide infrastructure and technological literacy platform to provide access and empowerment, prioritizing the role of education, research, and innovation. International institutions have an expanding role in planning and funding technological infrastructure in less-developed areas.
- The spread of technology to less-developed areas across and within countries needs to be rethought— the Fourth Industrial Revolution provides a chance for less-developed countries to develop by achieving a structural transformation, technology transfers being the driver for economic convergence.
- Stronger and up-to-date international governance structures that regulate security and privacy issues derived from the Fourth Industrial Revolution are essential to readdressing and tackling these challenges and thus preventing the deepening of techno-nationalism across countries.

2) Presentation 2

When it comes to techno-nationalism, China is in a class by itself. The most significant and controversial of its techno-nationalist pursuits is Made in China 2025 (MIC 2025). A great deal of hype has been generated about this initiative, in particular, claims that it is a fiendish plot for world economic domination. Although these fears are probably overblown, MIC 2025 does pose serious challenges that need to be addressed.

MIC 2025 aims for a decade of unprecedented progress by Chinese firms in nine sectors: advanced information technology, aerospace and aeronautics, automated machines and robotics, new-energy vehicles and equipment, rail transportation, electrical equipment, pharmaceuticals and advanced medical devices, agricultural machinery, and new materials. Several of these were included in China's previous industrial policy plans but not with the level of subsidization, specificity and breadth of targets, and pressure for domestic production that MIC 2025 involves.

The world should be careful to not overreact to MIC 2025. It is understandable, even commendable, that

[2] "It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before US, we had nothing before US" (Dickens, A Tale of Two Cities, 1859).

Chinese leaders want to leapfrog past the stage of low value-added assembly and heavily polluting, energy-intensive industrial development. Furthermore, the initiative's success is hardly preordained. Although China's industrial policies have produced some startling achievements in industries such as high-speed rail and wind power, the top-down approach has fallen far short of its aims in other sectors, such as semiconductors. Going back as far as 1991, Beijing's five-year plans have flagged development of a domestic chip industry as a national priority, only to see foreign chipmakers sprint ahead with next-generation innovations.

But even if MIC 2025 fails in its efforts to nurture homegrown companies that surpass foreign rivals, the potential for deleterious effects on economies and industries abroad is undeniable. The massive subsidization of priority sectors is likely to generate excess capacity in world markets for many technologically advanced products in ways similar to what happened in steel, aluminum, and solar panels. State-backed financing and other incentives have shown a marked tendency to spur waves of investment by Chinese companies, leading to surpluses of global supply over demand, with the resulting suppression of prices destroying profitability of healthy and weak firms alike. It is easy to conceive such a fate befalling cutting-edge companies outside China that cannot depend on the state to help them endure downturns, which their Chinese competitors can.

A second, related problem is the harm that techno-nationalist initiatives such as MIC 2025 could inflict on the rules-based trading system. It is unfair to assume the truth of every accusation against Beijing's trade policies—in particular, claims that Chinese officials force either the handover of proprietary technology or the purchase from domestic suppliers as the price of access to the Chinese market. But nobody should doubt that such practices occur and are probably common, given the power of the party-state to influence decisions by major Chinese companies and the responses of foreign multinationals to confidential surveys. A similarly functioning Ethiopian or even Vietnamese company might be tolerable from a systemic standpoint; when it is a Chinese one, the effect is corrosive.

However, this does not mean that China cheats. During the years since its accession to the World Trade Organization (WTO), China implemented the vast majority of the commitments it undertook at the time it joined. Further, when Chinese policies were clearly shown to abrogate WTO rules, especially when tribunals issued rulings to that effect, Beijing respected its legal obligations. Nearly all of the major complaints about China's trade regime involve practices where the applicability of WTO rules is uncertain or proof of violation is effectively impossible to produce.

Two overriding principles should thus govern the approach that the United States and other concerned countries take in their efforts to address MIC 2025 and other Chinese trade practices. First, the WTO should be the chief policy instrument for dealing with Beijing. The trade body remains the best way of inducing China to play by the rules, and its authority should be nurtured to the maximum extent possible; steps that undermine it should be avoided. Second, China should be treated as the trading system's single biggest challenge, meriting a concerted campaign in which Washington coordinates closely with a broad array of allies.

The principal element in such an approach would be a "big, bold" WTO case brought against China by a wide coalition of countries, as Georgetown University law professor Jennifer Hillman proposes. The heart of this case would be Article 23 of General Agreement on Tariffs and Trade (GATT) and WTO rules, called nullification or impairment. Under this seldom-used provision, a WTO member can be found guilty and be subjected to sanctions if its policies nullify or impair the legitimate expectations of its trading partners by violating the overall intent of the rules, even if no specific rules are being broken. As Hillman points out, "China's economy is structured differently from any other major economy and is different in ways that were not anticipated by WTO negotiators. . . . It is exactly for this type of situation that the non-violation nullification and impairment clause was

drafted."[3]

Obviously, a victory over Beijing would be no certainty. But Hillman is a former member of the WTO Appellate Body and has a well-informed idea of what could pass muster with WTO judges; Chinese officials would be foolish to dismiss the possibility of a catastrophic loss. Perhaps the best outcome of a Hillman-style big, bold case is that China would be forced to consider a negotiated settlement in which it would dismantle some of its most objectionable practices.

China's trading partners can band together and use WTO rules to maximum advantage in countering the effects of Beijing's policies in ways that do not involve litigation. The most promising involves section 15(b) of China's accession protocols, an underused provision that gives countries significant leeway to restrict imports of subsidized Chinese products.[4] Normally, government officials seeking to impose countervailing duties on subsidized imports must amass evidence to show the existence and amount of the subsidy. But in China's eagerness to join the WTO, it accepted several unusual and discriminatory rules. One was that if distorted market conditions in its economy cause special difficulties to its trading partners in estimating Chinese subsidies, the calculations can be made using prices and costs for comparable goods and inputs in other countries. Doing so makes it much easier to conclude that subsidization is occurring and that high duties are warranted.

China's trading partners need not worry that they are defenseless against global gluts of high-tech goods championed in MIC 2025. Together with Australia, Brazil, Canada, the European Union, Japan, South Korea, and other advanced economies, the United States can warn China that if subsidized Chinese high-tech companies begin exporting excess supplies of their products on global markets, countervailing duties will be imposed and China will be stuck with the glut in its domestic market. Here again, the United States would need to forge a coalition with all the countries that have major markets for such goods to ensure that everyone acts in concert.

Regrettably, the Donald J. Trump administration has taken an almost diametrical approach to the two principles mentioned. By raising import barriers unilaterally, it is flouting WTO rules and subverting the trade body's authority while alienating allies. The likelihood that China will back down in the face of such bullying is nil. The dubious distinction of "the trading system's biggest single problem" now belongs to the United States.

3) Presentation 3

The state's fraught relationship with the internet has come to shape several decisive controversies of the past few years. The tension between the state's ability to define and limit the local and the internet's tendency to erode these limits through an unfettered flow of communication, has played out around a variety of themes including surveillance, intellectual property, and the blurring of the limits between truth and untruth.

Just as the internet has been criticized for undermining national political processes, the state has been criticized for harming the free internet. The state has both directly intervened (as in the discussions around

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[3] Hearing on U.S. Tools to Address Chinese Market Distortions: Testimony before the U.S.-China Economic and Security Review Commission. 115th Cong. (2018) (statement of Jennifer Hillman) https://www.uscc.gov/sites/default/files/Hillman%20Testimony%20US%20China%20Comm%20w%20Appendix%20A.pdf.

[4] Xue Bai, Henry S. Gao, and Weihuan Zhou. "China's SOE Reform: Using WTO Rules to Build a Market Economy" Society of International Economic Law (SIEL), Sixth Biennial Global Conference. (July 1, 2018). https://ssrn.com/abstract=3209613 or http://dx.doi.org/10.2139/ssrn.3209613.

surveillance) and undermined its traditional role of protecting the internet as an equal space unwarped by commercial favoritism (e.g., in the debates around net neutrality). Over the past few years, the debate around the proper role of the state in relation to the internet has evinced a geopolitical split, especially since the 2012 World Conference on International Telecommunications. This meeting of internet governing bodies, nongovernmental organizations, and activists saw a split between a group of developing countries led by China and a set of mostly Western developed countries over the issue of internet sovereignty. Both before and after the conference, the Chinese government advocated for enhanced state sovereignty over the online space, making the case for a nationally delineated internet subject to national laws. By contrast, the Western developed countries campaigned for an open and borderless internet. The latter is not a simple vote of support for the free flow of information but also reflects the global ambitions of Western internet corporations, which managed to consolidate their early start online into globally dominant positions.

The dichotomy put the West on the side of "free" internet and China on the side of state intervention in the internet, flowing into a wider narrative that China is exporting its own authoritarian rule to the rest of the world. The growing relationship between Africa and China is frequently cited as an example of such a transfer of authoritarianism. Africa's relatively late adoption of internet technologies has provided a useful test of this narrative. China has been an important funder of data networks in Africa, and Chinese conglomerates such as Huawei and ZTE have acted as contractors, technical advisors, and human resource developers, both providing internet infrastructure and training African technicians overseeing them. In addition, Chinese companies such as Huawei and Tecno are also major providers of mobile phones—the dominant way Africans access the internet.

It therefore stands to reason that if China were intent on exporting its domestic governance to Africa, internet governance would be a convenient place to start. Following this logic, one would assume that China would be more willing to work with governments that echo its own centralized authoritarian model rather than with liberal democratic governments. The second supposition would be that its African partners would be under pressure to adopt a Chinese form of internet governance.

However, a closer look at the experience of African countries in their interaction with China around internet provision undercuts these suppositions. First, both the Chinese government and Chinese information and communications technology corporations have cooperated equally with liberal democratic African states such as Ghana and Kenya, and authoritarian centrist states such as Ethiopia and Rwanda.

Second, the modes of internet governance enabled by the cooperation between these governments and their Chinese partners are strikingly dissimilar. Instead of evincing the flattening of local priorities to fit a Chinese-molded authoritarian model, a comparison between these countries reveal that countries such as Kenya and Ghana have managed to build open and unconstrained versions of the internet with Chinese help and funding, while their authoritarian neighbors such as Ethiopia and Rwanda used Chinese tools to build centrally controlled internet systems marked by high levels of censorship and surveillance. There is no clear evidence that favors authoritarian governments or that China tries to dictate particular modes of governance.

Third, one of the reasons that China is not advocating for its domestic internet norms in Africa is that it has not put much effort into articulating exactly how a Chinese model of an information society would be exported. Chinese government and private-sector figures tend to emphasize the national specificity of Chinese modes of governance rather than articulating them as systems that can simply be plugged into foreign societies.

That is not to say that China's internet provision comes without an agenda. First, Africa has provided Chinese companies with opportunities to gain experience, training, and revenue by expanding into foreign markets

relatively free from the high levels of criticism and state intervention they experienced in the developed world. Unlike the hostile reaction Huawei received in the United States, it and ZTE have permission from African governments to gain experience across all the levels of internet provision, from installation to service provision and device sales. This was despite the widespread acknowledgement that Huawei used its African contracts as an opportunity to provide field training to junior engineers.

Second, while China arguably never intended to export its mode of internet governance as is, it has succeeded in gaining wider support for its broader internet sovereignty agenda. Rather than undercutting African governments by insisting on a specific mode of internet governance, Chinese interaction with both democratic and nondemocratic African governments has had the effect of putting the state, rather than the transnational private sector or individual citizens, at the heart of the African project of internet provision.

In the case of authoritarian governments like Ethiopia's, that meant slotting into a program of centralization and providing technical assistance to the state-owned telecommunications company, which controls all communication in the country. In the case of democratic governments such as those of Kenya and Ghana, it meant facilitating a central government role in development. Western funders' unwillingness to acknowledge the centrality of African governments as development actors means they refused to fund internet infrastructure that would be owned by state-owned companies. Chinese funders did not impose this rule, and once the infrastructure had been set up, these governments in some cases used state-owned infrastructure to foster internet economies of varying degrees of competitiveness. However, whatever the degree of openness, the state maintained its role as the primary provider of social services, including internet access.

The different modes of internet governance facilitated by China in Africa shows how the debate around China's so-called exporting of authoritarianism elides the agency of partner governments in the developing world. Rather than seeing Africa as a blank slate, it is important to acknowledge that it includes various actors, including technology companies, political parties, and civil society organizations. African governments are not just passive acceptors of outside ideas—they have their own vision of what internet development and governance should look like and this is embedded in larger African visions of development. This vision of development allows for different roles for the state than those envisioned by either Western liberalism or Chinese centralized developmentalism.

The African experience also calls for a more nuanced discussion of the future of the internet in relation to the state than the current account of a free Western internet versus a constrained and balkanized Chinese internet. First, in the cases of Ethiopia and Rwanda, where African governments drew on Chinese resources to set up modes of internet governance marked by high levels of censorship and surveillance, non-Chinese actors played crucial roles. Human Rights Watch pointed out that companies from Italy and the United Kingdom provided crucial mechanisms of surveillance.[5] Rwanda, whose mode of surveillance arguably most closely resembles that of China, built this system on the back of South Korean technology, while Chinese companies were mostly involved in construction and component manufacture.[6]

In addition, the Chinese rhetoric of using the internet to create a harmonious society has only been echoed in a few African cases. Instead, Western vocabularies of counterterrorism and the general securitization of Western

[5] Human Rights Watch, "'They Know Everything We Do': Telecom and Internet Surveillance in Ethiopia," March 25, 2014, https://www.hrw.org/report/2014/03/25/they-know-everything-we-do/telecom-and-internet-surveillance-ethiopia.

[6] Rwanda: Country Profile, "Freedom on the Net 2016," Freedom House, accessed September 25, 2018, http://freedomhouse.org/report/freedom-net/2016/rwanda.

development in the wake of the September 11 attacks have been used more frequently by African governments to crack down on civil society organizations and political opponents.

Rather than only focusing on the differences between Chinese and Western approaches to internet governance, it is worth thinking about some of the similarities. One of the important distinctions between the Chinese and Western approaches to internet governance has been the split between multilateral and multi stakeholder systems. The latter refers to the Western preference for an equal playing field where governments, international institutions, civil society, and the private sector can participate, while the former envisions a system streamlined by government oversight wherein various entities slot into the creation of an information society serving national development needs. The simple characterization of Chinese multilateralism as government-controlled and Western multi stakeholdership as free and open ignores the reality that both systems tend to align toward elite interests by offering powerful actors, be they governments or corporations, access to the communication of citizens. There are of course significant differences between being tracked by a government and being tracked by Google, but there are also significant similarities. Africa's experience in dealing with both Chinese and Western internet provision, as well as the experiences of African users in dealing with African governments empowered by this provision, show how important it is to complicate these categories.

Q&A Session

Audience 1

I think it's about time to think whether or not, or how, the current technological race will affect the current competition or race among countries. We are entering into a whole new world technological race. In that regard, techno-nationalism will have two different layers of impact. One is immediate impacts on trading relations among major countries as well as the current trading system. This comes down to how to restore the trade balance or the robustness of the trading system at the global level. At the same time another layer of potential impact of the global technological race would be the impact on the future competitiveness of the major leading countries because the technological competition doesn't take place in a political vacuum.

Techno-nationalism is about how to reformulate government-business relations, as represented by China's Made in China (MIC) 2025. China's MIC drive reignited the whole issue of the development model, because how to address techno-nationalism in the next stage of national competition. The US and China will still have to compete on which model would be better in facilitating technology innovation. The Chinese government would argue that a government-led innovation system might be better, of course under some conditions, but at the same time the US government may argue that the neoliberal free market model would be more sustainable and more effective in terms of nurturing technology innovation. In the end, the whole question will come down to the issue of development model competition, given that many developing countries in African or some other regions may be attracted to the Chinese model of development. In that regard it seems that techno-nationalism has to do with development model competition.

The second presenter correctly pointed out that the current global trading system isn't very effective in governing the new frontier of technology-related trade areas. In that regard it has to do with the issue of how to induce China and other developing countries into the existing rules-based order. But another dilemma is, in the age of the Fourth Industrial Revolution rules and norms aren't formally established yet. There are many gray areas as you said; there are

many loopholes in current WTO system. I think role of international institutions may be quite limited unless a group of leading countries can make a compromise in creating rules and norms in these new areas. But under the WTO system it will take quite some time to make robust and strong rules or regulations in this area. In that sense the question comes down to what would be the alternative given this kind of transition period in terms of the global trading order.

My third comment is on the issue of system equilibrium. The Trump administration launched protectionism or America first policy and by contract China actually acted as a proponent of globalization and continued economic integration, denying that China will support rising protectionism. At the same time China perceives itself mainly as a beneficiary of the globalization or current global economic order rather than as a provider of public goods. The existing Bretton-Woods system was creating under the premise of system equilibrium of who will provide public goods. Who will provide the public good if the current techno-nationalism continues? Of course there is a competition between countries but they don't have the idea of providing public goods. So in that regard the system may not be sustainable. That's one of the reasons why we must think about how to restore system equilibrium. That's one of the factors we have to consider when we enter into the next stage of technological competition.

Audience 2

Three years ago a gentleman by the name of Phil Howard published a book called Pax Technica: How the Internet of Things may Set us Free or Lock us Up. For those of you who have not read the book, there is no answer to this question in the book, but I strongly recommend it because it's an out-of-the-box approach to neither Pax Sinica nor the dying Pax Americana. It's pax technica. And I will use this book to throw a spotlight on those actors that I believe are not so far mentioned with sufficient attention, and that's the big tech companies.

Tech companies are important for at least two reasons. First is the provision of public goods. I would argue that access to Facebook or any social media is almost a public good. Who provides the public good for that? Tech companies have become utilities, so one philosophical approach from before the digital age would be to consider the big tech companies nothing less than utilities. Sometimes they are monopolies. What alternative do you have to using Facebook? You can either use it or not use it, right? This is one of the dilemmas. On a more serious note, because Facebook is not a human right of course, tech companies are increasingly acting as if they were governments. Think about YouTube, Twitter, Facebook, how they effectively provide censorship, what is right what is wrong, the whole concept of likes, smiley faces, and so on and so forth. This is becoming as if these tech companies knew what is right or wrong and thus assuming the role of courts. Someone can be blocked from using a certain service based on a set of standards designed by tech companies themselves.

Secondly, cryptocurrencies. Having your own currency is a feature of the state, is an expression of sovereignty. Cryptocurrencies are independent of states, so this is yet another example of how tech companies are wading into this sphere. I could go on about how they can privatize warfare as well, but we've seen that before. What I'm getting at is accountability- how to hold these companies accountable. They are privately held companies with some corporate mechanisms, but every major company- and these companies are major, major companies- has very elaborate structures. There are shares that overrule other shares. There are shares that own other shares and shares worth more than regular ones.

Then there are customers who use these services. They can vote with their legs or likes or smartphones, but sometimes they are left with no alternative. End users are not a good enough check on the influence of the tech companies. Finally maybe we could look for a semblance of accountability when we look at software engineers. The

people these companies depend on for their sustained influence, growth and so forth. One example was google, when news broke that it was engaged in contracts for the DoD. Software engineers were leaving in droves because it went against their work ethos. So I want to raise the question of accountability, which is closely related to trust. Without figuring out how to ensure accountability and trust we cannot move forward, even without mentioning techno-nationalism because tech companies transcend national borders. I can see the return of the state in that the states feel they must catch up, but in order to do the catching up we shouldn't think of a multilateral approach, instead we should think of multistakeholderism.

Audience 3

I'd like to make an observation on the China problem, or dealing with China in the face of this Belt and Road Initiative (BRI), which seems to be far more attractive than other concepts China tried before. The concept of homogeneous society was not so well-received prior. There seems to be a sort of consensus among China experts that BRI is a very diffuse concept. China experts always tell me not to look at China through the lenses of realism, and don't think that there's a strategy behind it and you can explain it in purely realist terms (power, state, gaining influence via this kind of projects). But what's the alternative to that? What can we expect?

We can expect that China to some extent plays by the rules set by international multilateral organizations, and it won't offer a real alternative. It won't design a counter model. But it doesn't invest into the sustainability of the existing multilateral order and its institutions. The third option would be to change the rules of the game, not to have in place different rules, but to adapt or reform the existing ones. It is interesting for all of the international players who heavily rely on functioning systems. My question is what is, if not a strategy, then a probable way for China of dealing in the mid-longer term perspective, with the existing structures, and second, if it's not material interest that other countries have in cooperating with China, what is it then? Isn't it also the attractiveness of a different society's economic system?

Moderator

We have three questions; equilibrium and global public goods. Who will provide global public goods, accountability of big tech companies, and Chinese strategy and how the world interacts with that.

Presenter

The issue of who will provide public goods is a key debate in Africa right now. There's such a need for the provision of public goods. This factors into the larger debate around all of the anxieties surrounding debt to China. What underlies some of those discussions is an awareness that Africa is such a young population, that in a way the youth is both a massive opportunity and a kind of time bomb. If African governments and societies are running down and up an escalator trying to get ahead of this massive demographic explosion, in order to not have that spin out of control.

This need informs a lot of why there's such a close relationship between China and Africa at the moment. There's a lot less expectation in Africa that massive western tech companies are going to step into that breach. This underlies some of the resistance that African governments have voiced against the Western stakeholder system. They feel it will simply be an overrun of already very well-established Western actors into systems where they feel no obligation to provide any kind of long term infrastructure or support. In a way, Africa provides a lens to look at all of these problems. One thing China hasn't succeeded in is providing social networking in Africa. One interesting thing that we've seen is what China has and hasn't provided. One thing they haven't actually managed to successfully provide in Africa is social networking. WeChat has tried to launch to low success, but WhatsApp has very high penetration.

South Africa has the biggest per capita use of WhatsApp in the world. Facebook is very prominent. African Twitter is a thing now.

It's interesting that those services are very dominant, but it's happening on the back of Chinese technology and networks. In Africa the provision of public goods is a kind of bricolage, where you try to get as much as you can from different places and then awkwardly stitch them together. What's then happening on top of that is the development of African tech solutions to African problems. This idea of African leapfrogging has become a cliché, but the uptake of mobile financing and mobile payments, half of all mobile pay accounts in the world are in Africa. Apple pay for example has had relatively low uptake among Apple users. But compared to that 1 in 10 Africans have made a mobile phone payment. Fintech and blockchain, for example in Nairobi, is a world center in this technology. Once these networks are in, there's less a situation of just Western or Chinese models being adapted, and more of a situation of grabbing control of these situations and trying to somehow adapt these systems so that they can deal with African realities.

Presenter

I thought the questions were brilliant and the provisions of goods, and even if China is willing to obey the WTO it's not willing to invest, not being in a position to lead.

It's a cutting question because the traditional provider of global public goods is not going to be providing them for a while. I'm going to come back to the question that was raised regarding "what is the alternative". It's clear the WTO won't be perfect and it's going to be even less perfect going forward. The Trump administration was remarking last night in an article in the NYT that their "strategy" is coming into focus. They're going to bully Japan and the EU in the same way they bullied Canada, by threatening car tariffs. Invoking national security section 232 of US law and arguing that it's perfectly legal under WTO rules because national security is a self-judging criterion. Then they're going to bring together this coalition of countries that's going to confront China. I do think the idea of having a coalition of countries confronting China and saying "there are things about your system that really present problems" is reasonable. But this should be done within the WTO. I don't understand where this "strategy" will go with regards to China; after bullying these WTO member countries in an egregiously rule-breaking way, to use this national security exemption; then, they're going to say to the Japanese and EU and Canadians and Mexicans, "Ok, now that we have you on our side, we're going to have a coalition to confront China because they're terrible rule-breakers." The other countries are going to say "Wait a minute, who is the biggest problem in this system? China is a problem in the system, but frankly you're a bigger problem in the system. We're not joining you and we're not imposing unilateral tariffs on China in an outrageous violation of WTO rules. You do it- we can't stop you, you're a big boy, but we're not going along." So I'm not sure where this strategy goes.

One possibility is that the US states: we're are going to in effect kick China out of the WTO, and create a whole new institution, basically transplanting the existing rules and incorporating some new rules to deal with SOEs, and you can join US or you can join China. This is where the world splits up. Does this sound familiar to anybody who read the history of the 1930s? This is a strategy that might have worked in 1994, but it won't work in 2018. Maybe at some level it will work in the sense of divorcing the Chinese economy from the US economy, but at some point financial markets are going to react. I've been incredibly surprised at how resilient financial markets have been even as a trade war has unfolded, but at some point, surely, it will crash when the system starts coming apart at the seams. I assume that if the Trump administration plans to go as far as I've suggested, I've been wrong about financial markets so far, and a lot of people have, at some point surely that will be the obstacle that presents itself to their evil little scheme. This is the alternative.

Presenter

I think I'll start with the question on BRI. I think the BRI is not an initiative or strategy, but a framework into which everything else is falling into. When BRI was formally announced in Beijing last year, the Director-General of the UN said that it was perfectly aligned with the development objectives when you look at G20, China says it's aligned with BRI- anything you do China says it's BRI.

It started as a three-way strategy of domestic economic development, economic insertion, and positioning, it's becoming not a competing but a complementary alternative to the current system we have. The problem it has is that it generates a lot of suspicion around the world, especially when China says harmonious society and shared future, in the West that generates suspicion as opposed to trust. This is a big problem for China. And you also have the attractiveness of China. For less developed countries, it's very simple. They're attracted, but they fear China. This is partly because developing countries admire how China has developed in 40 years. They say that any country that has managed to take 800 million people out of poverty in 40 years must be doing something right, despite whatever fears of things they might have.

The problem is that a lot of people don't understand China. For less developed countries, the farther left you go on the political spectrum, the easier it is to be convinced by Chinese strategists because they are quite keen on getting the investments and the money. For the rest of the governments who are more center and right, usually it is more about the Western world that we know. China ceases to be that attractive. In other words, better to stick with the evil that we know. And part of the problem, I always say, is when we talk about bilateral relationships with China, we don't seem to believe in the win-win that China proposes. The problem is that if you don't know what your win is, it's very difficult to negotiate. Less developed countries don't have a long-term strategy or planning and don't know what their win is. If one government wants one thing, the following government wants a different thing. It's very difficult to negotiate with a country that has a long-term vision when you have a very short-term perspective.

So, I'd like to finish with the main topic of the panel, going to the question of accountability. As one of the co-chairs of the G20, when we were drafting the communique, we had one of the priorities was the future of work. One of the task forces was about the future of work and education. We had 14 policy briefs and three recommendations. One of the recommendations was precisely about accountability. We need to have more accountability about the digital economy and the use of data. Another recommendation was the idea that for less developed countries to make the most of this new Fourth Industrial revolution they can't be catching up with the rest of the world all the time. We have to be ahead of the game. One proposal we did was on the role of think tanks and universities around the world and to come up with ideas and solutions, to talk about these global challenges and solutions we might need for the future.

Audience 4

I want to pick up on the relevance of BRI. I read about China's plans for a digital silk road which is accompanying this and voiced a number of worries and concerns that exist within the US national security community but I think more broadly. Part of this is about economic competition of course, in some cases as with the rest of BRI its exporting excess capacity, in China, excess potential employees as well as trying to get Chinese companies to be the digital standard for the digital technology future- 5G, IoT etc.. The difficulty here is that aspects of the BRI raise questions with regard to internet sovereignty vs. multi stakeholder approaches to a free and open internet.

There is a sense that this is partly a way for the Chinese government to export their sovereignty approach to the internet and a way to globalize the Chinese firewall and aspects of its cybersecurity law, by getting other countries to do something similar in terms of the partner countries there. It also creates the potential for China to create

backdoors through fiber optic networks and so on for surveillance and propaganda purposes. These are issues where it bears some examination in terms of geopolitical competition and national security issues going on. It also, as with much of the rest of the BRI, the degree to which China is interacting with some of these countries, does it not reinforce authoritarian politics in those countries or not? When you deal with the information realm, it's important to consider those potential impacts. Again, the surveillance and authoritarian aspects of potential domination of that type of cyber infrastructure is something we need to think about.

Audience 5

There is an idea from Heidegger that one day technology will come against the man who invented it. We are living in these days that Heidegger predicted 60 years ago. The solution to that is the state. There's no other solution, because behind the state is people. The only solution to the technology we know today, the robotics, the destruction of employment and everything that's going to happen, is the states. The states act on their own interest, and that is something that no one can stop. Of course states act in the name of principles; the West thinks more in terms of freedom and the Asian states, precisely China, think in terms of harmony.

Techno-nationalism is probably a reaction to techno-corporatism, which is something even more dangerous as the scandals with Google and Facebook have shown. To whom could you ask or request to defend you from data misuse? There are many things of concern, one of which is biosimilars and biopharmaceuticals. You can disagree with China on many things, but you cannot disagree with the fact that China brought a lot of prosperity to billions of people, who had no access to medicines, no access to basic technology. That was not a merit only of China, but also Korea and China, of which the pharmaceutical industry is just one example. Asia is building its own future, which is technological, and for the safety of people, there is the state that protects the most fundamental rights of people.

Audience 6

The variable here I believe that is being discussed right now is the variable of the non-state actor. We have two paradigms coexisting. You have the paradigm of the nation state and the paradigm where non-state actors compete. They compete among themselves, with nation states, across states, within states. I'm not only talking about companies, of course corporations are one, but let's think about ISIS using technology to further their goals, their targets across states. How would you introduce that variable into this discussion?

Audience 7

China is not the enemy of the world. And China should do more to work within the WTO, but the WTO is not a forum for neutral negotiation. The problems on this part should be resolved and we should find solutions through negotiation and the table within the WTO. The US is a superpower within the WTO, which can use the mechanisms it provides, but unfortunately they don't. As for techno-nationalism, I don't like this term because it overlooks the fact that China wanted to use international corporations to develop technology, for example Huawei. Huawei smartphones wanted to use cameras from Japan or Germany and the US for production. China wanted to cooperate. But the US forced Chinese companies to only use their own resources to develop their technology. So you can say China is tech-nationalist because it depends on its own resources, but it's not their fault. It's the fault of the whole world.

Presenter

Regarding sovereignty and the surveillance, China is not the only culprit in that sense. If you look at other places,

there was a database in India with the biometric data of 100 million people, and the UK has a massive surveillance system. I don't feel any safer in China, or the UK, or India. It needs to be regulated. We must devise a system of where these things are talked about and better governance of the system has to take place either by state or non-state actors.

Presenter

In a related answer, what we've seen in the case of Ethiopia is that Western countries have been as involved in enabling surveillance as Chinese companies were. UK and Italian companies were working with Chinese technology to enable surveillance. In the use of appropriation of discourses by the African governments to justify crackdowns on dissidence or civil society, for example, we've seen the war on terror discourse arising most frequently. Again in the case of Ethiopia, there was an Obama administration official who referred to Ethiopia as a "vibrant democracy" which made everyone laugh across the continent. It's interesting the way that leftward and rightward governments in the developing world relate to China. On the left side of Africa there's an interesting discussion about how some of the things that China is being criticized for by the Trump administration is kind of the holy grail for some African governments, so the forced handover of technology, forced local partnerships, all of those are things that local governments in Africa dearly wish to impose on companies in China. There is this adoption of this quite hard-nosed state development model in China and then governments are trying to apply it in Africa on China.

Final Words:

On techno-nationalism, it's an unfortunate, unavoidable problem in the system that governments will feel both that they have the right and the obligation to impose some type of trade barriers on products that might compromise national security. In 2013, there was a huge outcry in the US over fears that China was spying on US companies, and legislation was being proposed and all sorts of action was being prepared, and then suddenly the name Edward Snowden became world famous. There was a realization worldwide that the US had gone well beyond what people had realized it had been doing. The Chinese government and other governments reacted by imposing a lot of limits on the operations of large American tech companies in China, for reasons that had some understandable legitimacy. But the fear was that these types of limitations were in fact crypto protectionism. It's very hard to separate legitimate national security concerns from protectionism. Anyway that shut the US government's mouth for a while, the Snowden revelations, but the two sides came to an agreement in 2015 that they would spy on each other's militaries but not each other's companies. In spite of that, the other economic issues in the WTO that pertain to China ought to be addressed within the WTO. The alternative that we're looking at is not very appetizing. ■

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