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ARTICLES

ARTIFICIAL INTELLIGENCE REGULATION AND CHINA'S FUTURE

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China has announced to the world that it intends to become the global leader in artificial intelligence (AI), both in terms of developing and deploying the technology as well as governing it with appropriate laws and regulations. In light of this declaration, it is tempting to take the Chinese government at its word and brace for an AI-powered China of the future.

Plans, however ambitious, do not always reflect reality. Therefore, when it comes to understanding China's bold AI-related declarations and actions, it is important to put them into institutional context and look beyond the appearance of China's stated ambitions and into the more nuanced reality of how China's existing political and legal institutions describe and use the term "AI."

On that note, China's AI ambitions have currently served more immediate rhetorical and political goals rather than substantive ones. Furthermore, focusing on rhetoric over substance is having significant and potentially negative impacts on China's political and legal institutions, leading to institutional decay, the process by which growing complexity, ambiguity, and transaction costs inhibit institutions' capacity to rapidly, clearly, and effectively gather and share information and delineate tasks.

I. INTRODUCTION

Artificial Intelligence ("AI") is transforming the world. That, at least, is the claim.[1] Another claim is that the 21st Century will belong to China.[2] Over the last couple of years, the two claims have combined in important ways. China has announced to the world that it will become an AI leader, both in terms of developing and deploying the technology as well as governing it with appropriate standards, laws, and regulations.[3] As fascinating and potentially impactful as AI may be, it should not be viewed in isolation. In the case of China, it should be analyzed in light of China's broader political and legal landscape. This paper examines China's actions to date to govern AI, as well as the effects this "AI governance" might have on China's greater legal and political systems. By "AI governance," this paper refers to Chinese government policies and regulations that seek to control and encourage the development and deployment of AI technologies, as well as government use of AI technologies in the course of governance. Examples of the latter include predictive policing and court decision monitoring algorithms.

"AI governance" is an ambiguous term open to a great deal of interpretation. Instead of providing clarity, the Chinese Communist Party's ("CCP" or the "Party") actions demonstrate that the regulation of "AI" is a claim over rhetorical and physical spaces, as well as a claim over the future and the power that such spaces entail. China's regulation of AI thus far has not aimed at defining or clarifying what AI is or how it will be deployed. Rather, it has been aimed towards defining AI as a contest that China intends to win to establish a monopoly over the legitimate use, definition, and description of the technology and its potential benefits. While at first glance these efforts may seem to increase the Central Government's power over society, they may also contribute to broader institutional decay and harm China's legal and institutional reforms in the long run.

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1 Darrell M. West, *How Artificial Intelligence Is Transforming the World*, BROOKINGS INST. (Apr. 25 2018), www.brookings.edu/research/how-artificial-intelligence-is-transforming-the-world/.

2 Gideo Rachman, *Listen: Gideon Rachman - The Dawn of the Chinese Century*, FIN. TIMES (Apr. 30, 2018), https://www.ft.com/video/636a2ac1-a759-4330-b967-619191b688c3.

3 Xinyidai Rengongzhineng Fazhan Guihua (新一代人工智能发展规划) [New Generation Artificial Intelligence Development Plan] (promulgated by the St. Council, July 20, 2017), http://www.gov.cn/zhengce/content/2017-07/20/content_5211996.htm.

Part one of this paper explores the definition (or lack thereof) of AI as well as the implications of this lack of clear meaning in a legal and regulatory context. Part two discusses China's announcement that it will become an AI leader via national plans and argues that its contest over control of AI is rhetorical. Part three provides some background information about Chinese legal institutions and explains how China views AI, however defined, as an important tool of control and a means of extending its own power. Part four discusses how China governs of AI by making policy plans, appointing agencies to regulate the technology, and issuing standards, and articulates how this governance strategy establishes a monopoly over legitimate claims to what AI is and does. Part five analyzes the potential advantages of China's current governance of AI in terms of granting the central government increased control and power by creating a strategic ambiguity that benefits the central government. Part six raises concerns about the long term viability of this strategic ambiguity as well as the feasibility of China's current governance trajectory, including that sacrificing institutional process for the sake of immediate and politically appealing results might lead to chaotic, as opposed to strategic, ambiguity and institutional decay.

This paper combines a number of topics, none of which are novel. There exists extensive literature on the ethical and legal governance of AI, the role of technology and technology law in contemporary Chinese politics and society, and how these subjects interact. However, this paper discusses and combines themes from these various fields in novel ways. It presents a legal analysis of China's current steps to govern AI in the broader institutional context of legal and political changes that are happening in the country. I hope that it offers valuable insights and points of future discussion for readers interested in these subjects.

II. DEFINITION OF ARTIFICIAL INTELLIGENCE?

Defining AI has proven to be a complex task. While in many cases it is unnecessary to do so, discussions concerning "regulating" or "governing" AI imply that it is a concretely definable concept, one that means the same thing to different people and different regulatory institutions. Otherwise, what is it that is being "regulated" or "governed?" Many well-known developers of AI throughout its over six decades of history have deftly avoided the conundrum of defining "intelligence" in favor of considering whether a machine has the ability

to exhibit behavior that appears to be so.[4] Alan Turing's famous test, for example, cleverly avoids the question of defining intelligence in favor of an operational test that determines whether "behavior" exhibited by a machine is or is not distinguishable from that of a human being.[5] It therefore offers as little of a definition of what AI "is," as it does of what a human being "is." In today's environment of hype and competition, it would appear that "AI" has become a buzzword that reflects the shifting and highly ambitious goals of whoever uses the term. This paper's goal is not to support a definition of "AI," but rather to present the term as it has been used by various actors in China and elsewhere, a term generally referring to a broad idea of technological advancements that will replace and or "augment" human activities in ways that will offer great opportunities to accumulate wealth and power. That being said, AI in this paper can refer to each of the following components as articulated by Jim Baker, as indicated by the context: (1) hardware (usually very fast computer processors); (2) software that runs on the hardware (including instructions and algorithms that allow the machine to follow a series of steps and act "intelligently"); (3) input and output devices for the machine to take in and communicate information and instructions; and (4) data that the machine can store, process, and analyze.[6]

A. A CONCEPT THAT TAKES ON UNLIMITED MEANING

As AI increasingly gains the attention of individuals, businesses, and governments, attempts to define it take on a new dimension. This is especially true in the context of the regulation and governance of AI—while there are laws that attempt to limit and shape human behavior, such laws tend to do so specifically (such as by prohibiting murder), rather than govern all of human behavior (such as by demanding that individuals be good people). What about artificially created intelligence and "behavior?" Can artificial intelligence and behavior be subject to broad laws and plans, any more than human intelligence or behavior? Is a law demanding that AI be "ethical" any more meaningful than one requiring that a person be "good?" Regardless of one's answer to this

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4 Ian R. Kerr, *Bots, Babes and the Californication of Commerce*, 284 UNIV. OTTAWA L. & TECH. J. 287, 309 (2005).

5 Alan M. Turing, *Computing Machinery and Intelligence*, 59 MIND 433 (1950).

6 Jim Baker, *Artificial Intelligence: A Counterintelligence Perspective: Part 1*, LAWFARE BLOG (Aug. 15, 2018), https://www.lawfareblog.com/artificial-intelligence-counterintelligence-perspective-part-1.

question, governments across the world, including China's, have been increasingly using the phrase "AI" in broad and ambitious plans that discuss, among other things, the importance of governing it. What exactly are they planning on regulating?

Below is a list of some (but certainly not all) definitions of AI that may be influential in regulatory thinking: Stanford's Fei-Fei Li describes AI as an "omnibus term for a 'salad bowl' of different segments and disciplines" with subfields including robotics and computer vision;[7] the Eurasia Group defines AI as a "blanket term for a large set of processes, data analytics, enabling technologies, applications, and software that make an existing process 'smarter' with highly optimized results" that can enable smart game playing, efficient financial applications, super-human perception, and advanced decision-making;[8] Stanford's Nils Nilson states that "[AI] is that activity devoted to making machines intelligent, and intelligence is that quality that enables an entity to function appropriately and with foresight in its environment."[9]

Other definitions emphasize the potentially transformative nature of AI, suggesting that it is a fungible technology that can potentially perform many different tasks in different contexts: Dr. Kai-fu Lee and Paul Triolo describe AI as a "fundamental enabling technology that can be added to existing processes and services to make them smarter, more efficient, more accurate, and more useful."[10] Baidu Baike, a Chinese online encyclopedia similar to Wikipedia, has a` lengthy page on AI that includes descriptions ranging from a branch of computer science that focuses on studying intelligence to a description of the complexities of defining, studying, and creating that which is "artificial" and "intelligent." It also suggests that AI might surpass

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7 Economist Reporters, *Non-tech Businesses Are Starting to Use AI at Scale*, THE ECON. (Mar. 31 2018), https://www.economist.com/news/special-report/21739431-artificial-intelligence-spreading-beyond-technology-sector-big-consequences.

8 Kai-fu Lee & Paul Triolo, *China's Artificial Intelligence Revolution: Understanding Beijing's Structural Advantages*, EURASIA GROUP, 3 (Dec. 2017), https://www.eurasiagroup.net/files/upload/China_Embraces_AI.pdf.

9 Daniel Faggella, *What is Artificial Intelligence? An Informed Definition*, TECH EMERGENCE (May 15, 2017), https://www.techemergence.com/what-is-artificial-intelligence-an-informed-definition/.

10 Lee & Triolo, *supra* note 8, at 2.

human intelligence.[11] Wikipedia has a similarly long and philosophically probing page.[12]

Defining AI in and of itself, as described above, is not a simple task. The challenge grows even more convoluted when the political questions surrounding what AI does and should do are involved.

B. A LEGAL DEFINITION OF AI

The malleability of AI makes it simultaneously an omnipotent and useless legal tool. Robert Calo argues that jurists rely on metaphors when articulating the law's relationship to new technologies or novel applications of technologies. According to him, "a metaphor is a means of achieving a rhetorical effect by directly equating disparate concepts" and that "every metaphor is, in its own way, an argument."[13] Similarly, Michael Froomkin points out that "the power of a metaphor is that it colors and controls our subsequent thinking about its subject" and that this characteristic is "particularly relevant and powerful when the law encounters a new technology."[14] The law does not attribute fault or responsibility to machines, however sentient, only to people (that is, if it can attribute fault to anything at all). People are thus especially dependent on metaphors and personification when talking about AI in different legal contexts (indeed, the name "AI" itself is a metaphor). As a result, how AI is labeled and described is fundamental in determining how it affects us; rhetorical framings of what "AI" is and does fundamentally affect what laws and regulations can accomplish in regard to AI. For example, in the case of a crash in which a self-driving car is found to be at fault, two possibilities of what AI "is" are (1) the property or an agent of its manufacturer (if the manufacturer is held liable), and (2) a tool of its owner (if the owner is found liable).

While one approach could be to avoid the framework of "AI" and require greater specificity when regulating or applying existing law to the impacts of different technologies, another is to embrace AI's conceptual breadth, in which case, the label "AI" has the potential to

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[11] Baidu Baike Contributors, Rengongzhineng (人工智能) [*Artificial Intelligence*], BAIDU BAIKE, 2018, https://baike.baidu.com/link?url=KymDAzDnWJu7YSRrddZfvGzW6mdcc8o0bwAPPxAXrDrEwifetjylfQaPFcKaa5KlIEycwGpTqBUA3IK_6EWcOyEwLtE9a2jfRU92mi4atm8kS3yT53ENp_VeQaGtIpXg.

[12] Wikipedia Contributors. *Artificial Intelligence*, WIKIPEDIA, 2018, https://en.wikipedia.org/wiki/Artificial_intelligence (last visited July 5, 2019).

[13] Ryan Calo, *Robots as Legal Metaphors*, 30 HARV. J. L. & TECH. 209, 211 (2016).

[14] A. Michael Froomkin, *The Metaphor is Key: Cryptography, the Clipper Chip, and the Constitution*, 709 U. PENN. L.R. 712, 860 (1995).

obfuscate even fundamental questions of agency, fault, and responsibility in the application of laws. In other words, calling a thing "AI" gives it a legally ambiguous existence. What kind of thing is it really—property? A legal person? The potential number of contexts and impacts on human relations is gargantuan. A law regulating "AI" thus could have a potentially unlimited reach, with questionable utility.

Of course, no law is perfect by itself. Even ones involving more clearly defined concepts such as murder ultimately require people to argue, interpret, and apply them in ways that are unique to specific contexts. However, the colossal breadth of AI as a framing device has so many contextual possibilities that it potentially eviscerates the capacity for common ground and common understanding in a way that makes the application of the law less consistent, more ambiguous, and more arbitrary.

As Jeff Ding points out in *Deciphering China's AI Dream*, "[n]o consensus exists on the endpoints of AI development."[15] At the same time, there is not a consensus on the starting points of AI either, especially when a legal definition of AI is concerned. There are really no boundaries at all. Laws that regulate AI could thus come to have the power to regulate everything and nothing at all. This Schrodinger's Cat-like superposition by which AI encompasses everything and nothing at the same time, combined with the increasingly global nature of tech regulation, indicates that even broad and longstanding legal regimes in geographically diverse places can change in unpredictable ways. For instance, Danielle Keats Citron describes how tech companies' speech regulation agreements with the European Commission (involving automated content posting and removal) have led to a "censorship creep" whereby individual pieces of content are removed and policed in unclear ways in places far beyond European borders.[16] In China, the government has more comprehensive powers than that of the EU, and the Chinese government has been much more aggressive in promoting a national interest in regulating AI- and thereby spreading its own brand of regulatory "creep."

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[15] Jeffrey Ding, *Deciphering China's AI Dream*, FUTURE HUMANITY INST., 3 (Mar. 14, 2018), https://www.fhi.ox.ac.uk/wp-content/uploads/Deciphering_Chinas_AI-Dream.pdf.

[16] Danielle Keats Citron, *Extremist Speech, Compelled Conformity, and Censorship Creep*, 93 NOTRE DAME L.R. 1035, 1039 (2018). While the regulations discussed in this article do not always state that they are "regulating artificial intelligence," they utilize broad approaches to govern environments that are the products of network effects of use by many human beings and automated bots, routers, and other systems. Such environments could be considered "artificial intelligence."

A more effective approach towards "governing AI," would be to examine the actual contexts in which AI is being used and explore the ways that "AI" changes dynamics in ways that require new laws and policies in those specific contexts, rather than focusing on the presumed uniform and transformative nature of everything labeled "AI". In other words, policy makers and jurists should consider not only how AI is "different" but also how it can and should fit into existing legal institutions, as well as how those institutions should evolve to accommodate new technologies. "Governing AI" in this sense does not require the labeling of "AI." It does likely require updating institutions to be able to respond to the use of AI technologies in different industries. So far, international and national AI plans tend to only address the governance of AI in vague and sweeping terms without reference to the specific process of institutional change.[17]

Fortunately, discussions of broadly regulating AI are still nascent. The Chinese government has recently been very enthusiastic in terms of describing how it will become a leader in not only developing but also governing AI. The rest of this paper examines the articulated plans, their potential impact on the law of AI, and the impact that the regulation of AI could have on Chinese laws and institutions.

III. ARTIFICIAL INTELLIGENCE IS A NATIONAL PLAN

In July of 2017, China's State Council released a document titled "New Generation Artificial Intelligence Development Plan" (the "AI Development Plan") that articulated national ambitions to lead the global AI industry by 2030.[18] This plan was not the beginning of China's involvement in AI and its regulation.[19] However, it was a particularly ambitious and timely announcement. AI has been a buzzword across the world for a couple of years and China released a national plan announcing its intentions to become the industry leader in the near future. The plan also discussed the importance of China being a leader in setting ethics and regulations around developing AI technologies.[20] Naturally, the plan has garnered a great deal of attention and sparked ideas that AI development is a grand, geopolitical contest,

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17 The Future of Life Institute has a compilation of national and international AI plans. *See National and International AI Strategies*, FUTURE LIFE INST., https://futureoflife.org/national-international-ai-strategies/.

18 State Council Plan, *supra* note 3.

19 Ding, *supra* note 15, at 8.

20 State Council Plan, *supra* note 3.

the winner of which will control the future.[21] China is not the only country to release a national plan. For example, the OECD released a general list of AI guiding principles with 42 signatories (China is not one of them).[22] Other international organizations and individual countries have AI development and governance plans that, like China's, push for the development and appropriate governance of AI.[23]

What does China's plan actually do? It articulates clear monetary marks in terms of the size of China's AI "core" industry and the size of AI "related" industries (it is unclear what exactly the difference between "core" and "related" industries is) by 2020, 2025, and 2030.[24] It also claims that China will be the global center of AI innovation, development, and governance. At least in this initial plan, there are not many concrete or substantial details in terms of how AI will be governed in a way that ensures its public benefit and China's leadership in the field. Thus, the plan was more of a coming out, an announcement to the world of China's claim to the mysterious and enticing frontier of "AI" and the future it represents.

This "coming out" is directed at two main audiences: a domestic one and an international one. Internationally, the plan articulates how China will become a world leader in AI. Given the potential power of AI that is clearly articulated in the plan, this is also an announcement that China will become a world leader more generally. The rhetoric is not new and meshes succinctly with other globally-facing announcements and regulatory actions. For example, the recently instituted Cybersecurity law has been described as an important tool in increasing China's role in building, governing, and operating the internet, all of which are a part of China's future as a "Cyber Power" (网络强国).[25] Developing AI also fits nicely with President Xi's articulation of China becoming a "science and technology superpower"

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[21] Raymond Zhong & Paul Mozur, *For the U.S. and China, a Technology Cold War That's Freezing Over*, N.Y. TIMES (Mar. 23, 2018), https://www.nytimes.com/2018/03/23/technology/trump-china-tariffs-tech-cold-war.html.

[22] *Recommendations of the Council on Artificial Intelligence*, ORG. FOR ECON. COOPERATION & DEV. (May 21, 2019), https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449.

[23] *National and International AI Strategies*, *supra* note 17. Some international organizations with AI plans include the OECD, and the European AI Alliance. At least 26 countries have released AI plans, including the U.S., Germany, Japan, and others.

[24] State Council Plan, *supra* note 3.

[25] Elsa Kania et al., *China's Strategic Thinking on Building Power in Cyberspace*, NEW AM. (Sept. 25, 2017), https://www.newamerica.org/cybersecurity-initiative/blog/chinas-strategic-thinking-building-power-cyberspace/.

in his report to the 19th Party Congress in October of 2017.[26] In a speech made after the National People's Congress ("NPC") removed presidential term limits, President Xi gave a speech filled with nationalist themes and vague references to various threats and shadowy forces that wanted to divide and otherwise undermine China.[27] AI, as articulated by the July Plan, is already and will continue to be a key feature of China's global leadership and a key tool for empowering China against global threats. As the Chinese nation prepares to "ride the mighty east wind of the new era[28]," AI is described as a key sail.

In other words, AI is a global struggle, a contest that China is poised to win. To be clear, I am not arguing that developing AI is (or is not) a geopolitical contest, but merely pointing out that China's National Development AI Plan articulates it as such. This is true, both regarding the development of the technology and the development of laws and regulations to govern the technology. Standards issued in a white paper by the China Electronics Standardization Institute[29] ("CESI") describe AI as key to industrial innovation and as an industrial "strategic high ground" (制高点).[30] It also describes the importance of leading AI standardization in order to prop up industrial development and foster innovation.[31] This "coming out" to the international community has been dramatically successful, as government and industry leaders across the world have described "China's AI rise" with both awe and trepidation.[32]

China is not alone in describing AI as a frontier space that must be conquered. AI has oft been described as "transformative" and there

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[26] Ding, *supra* note 15, at 7.

[27] FT Reporters, *China's Xi Targets Separatism in Major Speech*, FIN. TIMES (Mar. 19, 2019), https://www.ft.com/content/4b661150-2beb-11e8-9b4b-bc4b9f08f381.

[28] *Id*.

[29] This is a standards-setting organization within China's Ministry of Industry and Information Technology (MIIT). Its website can be found at: http://www.cc.cesi.cn/english.aspx.

[30] Rengonzhineng Biaozhunhua Baipishu (人工智能标准化白皮书) [*Artificial Intelligence Standardization Whitepaper*], CHINESE ELECTRONICS STANDARDIZATION INST., 35 (Jan. 2018), https://pan.baidu.com/s/1hueUZM8 ("既是推动产业创新发展的关键抓手，也是产业竞争的制高点").

[31] *Id.* ("更应重视人工智能标准化工作对于促进技术创新、支撑产业发展具有的重要引领作用").

[32] Gregory C. Allen, *China's Artificial Intelligence Strategy Poses a Credible Threat to U.S. Tech Leadership,* COUNCIL ON FOREIGN REL. (Dec. 4, 2017), https://www.cfr.org/blog/chinas-artificial-intelligence-strategy-poses-credible-threat-us-tech-leadership.

is general rhetoric that whoever controls AI will control the future.[33] Eric Schmidt and Bob Work describe AlphaGo's mastery of the ancient Chinese strategy game as a "sputnik moment" that, due to the complexity of the game, the publicity around the win, and the fact that AlphaGo mastered something "Chinese," galvanized the thinking of the Chinese government and public into viewing the development, deployment, and governance of AI as a grand strategy game itself.[34] Determining whether AI really is going to change the world or whether it is inevitably a geopolitical contest is not within the scope of this paper; the point is that the rhetoric is compelling, whether true or not. It is at least compelling enough that the Chinese government has staked its flag and claimed the frontier as its own.

The AI Development Plan's second audience is domestic and includes the Chinese people, Chinese companies, and various bureaucracies throughout the government. For this domestic audience, the plan is both an explanation and a reiteration of the central government's power, as well as notice that China will control AI and therefore the world. For one, the plan describes how AI will help the government solve many problems of control, both economic and social.[35] It describes AI as an "engine of growth" that can help facilitate China's transition towards a more service-oriented economy while maintaining large growth numbers. The plan also states that AI will help solve some of China's social problems with its capacity to predict, perceive, and warn against threats as well as its general use in "intelligentizing" (智能化) various industries and tasks.[36]

As exciting and transformative as AI may be, another purpose of the AI Development Plan is to reiterate the central government's control over it, the way it is developed, discussed, and deployed, and the various effects it will have on society. The thought is that if AI

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[33] Will Knight, *Inside the Chinese Lab that Plans to Rewire the World with AI*, MIT TECH REV. (Mar. 7, 2018), https://www.technologyreview.com/s/610219/inside-the-chinese-lab-that-plans-to-rewire-the-world-with-ai/.

[34] Ding, *supra* note 15, at 7 (citing Colin Clark, *Our Artificial Intelligence 'Sputnik Moment' Is Now: Eric Schmidt & Bob Work*, BREAKING DEFENSE (Nov. 1, 2017), https://breakingdefense.com/2017/11/our-artificial-intelligence-sputnik-moment-is-now-eric-schmidt-bob-work.)

[35] As mentioned above, the plan lists the size of its future AI industry in RMB for the years 2020, 2025, and 2030. It also promotes using AI to improve the "intelligentization" of social governance, social interaction, and the social credit system. State Council Plan, *supra* note 3.

[36] It is not clear what it means to "intelligentisize" something. It apparently is something beyond mere automating, but it is unclear at what point something has intelligent capabilities (智能). State Council Plan, *supra* note 3.

transforms society, the central government will still be in charge, and bringing AI into the party lexicon reiterates the party's control over politically correct definitions and uses. This thought has already been set in motion. After the release of the AI Development Plan, the Ministry of Industry and Information Technology (MIIT) issued its own action plan, and several provinces and cities followed suit. Currently, there are at least 15 agencies that can "govern AI."[37] The internal contest is not only limited to government agencies; as Jeff Ding points out: "private companies, academic labs, and subnational governments are all pursuing their own interests to stake out their claims to China's AI dream."[38] Of course, in this contest, the central government defines the arena, as well as the winners and losers. The government has the beneficial position of being both players and the referees.

This dynamic is not unique to AI. The Chinese government and Chinese companies have mixed politics and economics in ways that make external observers uncomfortable in other contexts as well.[39] For example, Go Yamada and Sefania Palma, writing for the *Nikkei Asian Review*, illustrate how the China Railway Corporation, a state-owned rail operator, has debts of approximately 3.8 trillion RMB due to much of the high-speed rail in China running at a loss. The company can survive because of its political importance. This overall dynamic has already impacted China's Belt and Road Initiative in different places.[40] This is also true in the technology space. Josh Rogin points out how the CCP, relying on "national champions," has "merged its political and industrial efforts on a scale unseen in modern history" in the technology and telecom sectors.[41] According to the article, the Trump

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[37] Kejibu Zhaokai Xinyidai Rengongzhineng Fazhan Guihua ji Zhongda Keji Xiangmu Qidong Hui (科技部召开新一代人工智能发展规划暨重大科技项目启动会) [Ministry of Technology Convenes a Launch Meeting Regarding the New Generation Artificial Intelligence Development Plan and Important Technology Programs] (promulgated by the Ministry of Science and Technology, Nov. 20, 2017), http://www.most.gov.cn/kjbgz/201711/t20171120_136303.htm.

[38] Ding, *supra* note 15, at 15.

[39] *See* Mark Wu, *The "China Inc." Challenge to Global Trade Governance*, 57 HARV. INT'L L.J. 261 (May 2016), https://harvardilj.org/wp-content/uploads/sites/15/HLI210_crop.pdf.

[40] Go Yamada & Stefania Palma, *Is China's Belt and Road Working? A Progress Report from Eight Countries*, NIKKEI ASIAN REV. (Mar. 28, 2018), https://asia.nikkei.com/Features/Cover-story/Is-China-s-Belt-and-Road-working-A-progress-report-from-eight-countries.

[41] Josh Rogin, *America is Hanging Up on China's Telecom Industry*, WASH. POST (Apr. 1, 2018), https://www.washingtonpost.com/opinions/global-opinions/america-

Administration is preparing a series of actions to respond to "what it sees as unfair collusion between the Chinese government and Chinese companies to take over the industries of the future and then use that influence to promote China's political agenda." [42] Massive state subsidies of tech companies have emerged as one of the U.S.'s major complaints against China in the U.S.-China trade war.[43] Because "AI" as an idea and industry has such potential breadth, the number of blurred public/private relationships as well as the spaces in which the Chinese government exerts its attempts at control is likely to increase.

A. THE CONTEST OVER ARTIFICIAL INTELLIGENCE IS A RHETORICAL ONE

A part of the marketing of "novel" technologies that will be "transformative" is selling a particular kind of future, one that is different (and hopefully better) than the present. According to tech journalist Erin Griffith, "even the most well-intentioned startup founders have to persuade investors, engineers, and customers to believe in a future where their totally made-up idea will be real."[44] This is as true of nations as it is of individual entrepreneurs. In some cases, this "fake it till you make it culture" has led to fraud: Griffith details the Security Exchange Commission's investigation of health technology startup Theranos and its "elaborate, years-long fraud in which they exaggerated or made false statements about the company's technology, business, and financial performance." [45] The company also made exaggerated claims about what its products could accomplish, leading the SEC regional director to issue a statement declaring that "innovators who seek to revolutionize and disrupt an industry must tell investors the truth about what their technology can do today, not just what they hope it might do someday." [46] AI has been aggressively marketed as a technology that will change the future and also as an opportunity for the

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is-hanging-up-on-chinas-telecom-industry/2018/04/01/2a746710-35b1-11e8-8fd2-49fe3c675a89_story.html?utm_term=.fa761ea3a7e9.

42 *Id.*

43 Keith Bradsher & Ana Swanson, *U.S.-China Trade Talks Stumble on China's Spending at Home*, N.Y. TIMES (May 12, 2019), https://www.nytimes.com/2019/05/12/business/china-trump-trade-subsidies.html.

44 Erin Griffith, *Theranos and Silicon Valley's 'Fake It Till You Make It' Culture*, WIRED (Mar. 14, 2018), https://www.wired.com/story/theranos-and-silicon-valleys-fake-it-till-you-make-it-culture/.

45 *Id.*

46 *Id.*

masters of such technology to control the future.[47] In the case of AI, controlling the rhetoric is no different than controlling the future itself (as well as the present builders of that future). When nebulous terms such as "AI" control our future, controlling such "technology" becomes a matter of rhetorical and narrative control in the present.

Increasingly, this kind of "fake it till you make it" marketing of technology has entered the imaginations of powerful political actors. Defining what AI is and what it can do has thus become an inherently political endeavor. In the words of E. E. Schattschneider, "political conflict is not like an intercollegiate debate in which the opponents agree in advance on a definition of the issues. As a matter of fact, the definition of the alternatives is the supreme instrument of power; the antagonists can rarely agree on what the issues are because power is involved in the definition."[48] If the contest over AI is a contest over who controls the future, defining AI now is akin to defining the future. Alternative definitions become threatening, and controlling definitions of AI and its uses become synonymous with political power. In other words, defining AI is less important than the capacity to define and control the narrative of AI.

As a result, AI does not need a clear definition to become a source of geopolitical conflict. The perception of AI and its capacities, rather than the reality, appears to be driving domestic and foreign policy in China and other countries.[49] President Xi believes that AI technology is a critical battleground in the future of global military and economic power competition.[50] China's military is also aggressively pursuing military usage of AI and is already exporting autonomous weapons platforms and surveillance AI.[51] Peter Navarro, the current Director of Trade and Industrial Policy to President Trump, has argued that the U.S. and China are "trying to basically win the battle over the emerging

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47 *See, e.g.*, Gideon Lewis-Kraus, *The Great A.I. Awakening*, N.Y. TIMES (Dec. 14, 2016), https://www.nytimes.com/2016/12/14/magazine/the-great-ai-awakening.html.

48 E. E. SCHATTSCHNEIDER, THE SEMI-SOVEREIGN PEOPLE 68 (1961).

49 Rogier Creemers, *The International and Foreign Policy Impact of China's AI and Big Data Strategies,* in *AI, China, Russia, and the Global Order: Technological, Political, Global, and Creative Perspectives*, U.S. DEPT. OF DEFENSE, 122 (Dec. 2018), https://nsiteam.com/social/wp-content/uploads/2018/12/AI-China-Russia-Global-WP_FINAL.pdf.

50 Gregory C. Allen, *Understanding China's AI Strategy: Clues to Chinese Strategic Thinking on Artificial Intelligence and National Security*, CENTER FOR A NEW AMERICAN SECURITY (Feb. 6, 2019), https://www.cnas.org/publications/reports/understanding-chinas-ai-strategy.

51 *Id.*

industries of the future" in a radio interview with the *Financial Times*.[52] The Eurasia group has also pointed out that there exists a "consensus view" that the U.S. and China have started a "two-way race for AI dominance," thereby making the technology a "key source of trade friction between the two countries."[53] On the geopolitical stage, AI has come to represent a contest over the future, a frontier space that one and only one country can "conquer" and a technology that will fix insurmountable problems.[54] China's strategy in the face of this geopolitical drama is to seize the rhetorical high ground. Given its comparatively greater control over companies and markets within its jurisdiction, the Chinese government has a greater capacity to force a unified approach to AI than do other nations or Silicon Valley. According to the government, AI is not only a transformative technology, but one that will propel a CCP-led China into supreme world power status, one that will continue to enrich the Chinese people and solve social ills.[55]

Rogier Creemers argues that law fits into Chinese communist ideology by "focus(ing) on a future to be achieved, rather than a present to be governed."[56] China views AI and other technologies as drivers of a "fourth industrial revolution," an opportunity that offers China the chance to leapfrog past other countries and attain global leadership.[57] On this note, China offers AI as part of the realization of the Chinese Dream, and the end of a centuries' long drama in which China has not been in its proper geopolitical place. In the West, there has recently been increasing concern over China's political future, particularly after the NPC removed presidential term limits.[58] According to some, the act demonstrates that the West has misunderstood China's political

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[52] Tom Mitchell & Shawn Donnan, *Chinese Trade Chiefs Scan Washington for Elusive Dealmakers*, FIN. TIMES (Apr. 4, 2018), https://www.ft.com/content/ce9c853e-37d7-11e8-8b98-2f31af407cc8?emailId=5ac790c54dc78f0004235e58&segmentId=c393f5a6-b640-bff3-cc14-234d058790ed.

[53] Lee & Triolo, *supra* note 8, at 1.

[54] As discussed above, China's State Council's National Plan claimed that AI will solve some of the country's systemic economic and social problems.

[55] State Council Plan, *supra* note 3.

[56] Rogier Creemers, *Party Ideology and Chinese Law*, 8 (July 30, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3210541.

[57] Creemers, *supra* note 49.

[58] *See, e.g.*, Anthony Kuhn & Renee Montagne, *China Removes Presidential Term Limits*, NAT. PUB. RADIO (Mar. 11, 2018), https://www.npr.org/2018/03/11/592700156/china-removes-presidential-term-limits.

trajectory and that China has "failed" to liberalize.[59] Per this narrative, China has reached the endpoint of its political system—a return to Mao-style strong man rule. This idea is overly simplistic. As Julian Gewirtz, writing in *Chinafile*, has pointed out, the idea that China's political evolution is over is misguided.[60] The Chinese people, economy, and political system are too dynamic to suggest that history "ends" with Xi's authoritarian power.[61] However, Western observers are not the only ones articulating an "end of history" for China. The Chinese government is arguably utilizing the infinite potential of AI and creating rhetoric surrounding the advent of the technology to argue China's future control over it in order to argue its own end to history. AI is a contest for the future, and China is going to win, and this will be the end of China's current struggles; the next story will involve China's status as an AI-equipped great power.[62]

There are many ways that the Chinese government and other politically important actors are seizing the rhetorical high ground. One example is marketing China's many perceived advantages in its capacity to develop AI, now and in the future. China's largest tech companies, Alibaba, Tencent, and Baidu, have all made efforts to articulate a "Chinese AI." For instance, Chinese tech companies have marketed China as being less concerned about privacy and more open to technological innovation. Due to AI's (at least current) reliance on copious amounts of data in order to properly train algorithms, some commentators have argued that restrictions on data collection could prove to be barriers to developing better AI. Baidu's CEO, Robin Li, stated at the China Development Forum in March 2018 that Chinese consumers are more willing to allow the collection and use of personal data in exchange for more convenience. He also said that the Chinese people are more open to accepting new things.[63] Similarly, at the World AI Summit last year, an Alibaba employee explained that "in China,

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59 *See, e.g.*, Economist Reporters, *How the West Got China Wrong*, THE ECON. (Mar. 1, 2018), https://www.economist.com/news/leaders/21737517-it-bet-china-would-head-towards-democracy-and-market-economy-gamble-has-failed-how; Kurt M. Campbell & Ely Ratner, *The China Reckoning*, FOREIGN AFF. (Mar./Apr. 2018), https://www.foreignaffairs.com/articles/united-states/2018-02-13/china-reckoning.

60 Julian Gewirtz, *Chinese History Isn't Over*, CHINA FILE (Mar. 12, 2018), http://www.chinafile.com/reporting-opinion/viewpoint/chinese-history-isnt-over.

61 *Id.*

62 State Council Plan, *supra* note 3.

63 Huxiu Editors (Pandaily trans.), *Baidu CEO Robin Li: Chinese Consumers Favor Efficiency at the Expense of Privacy,* MEDIUM (Mar. 27, 2018), https://medium.com/@pandaily/baidu-ceo-robin-li-chinese-consumers-favor-efficiency-at-the-expense-of-privacy-eea08bff9cb9.

people are less concerned with privacy, which allows us to move faster." [64] International commentators have also caught on. *The Economist*, for example, claims that "Chinese firms have an early edge, not least because the government keeps a vast database of faces that can help train facial-recognition algorithms; and privacy is less of a concern than in the West."[65]

While questions of ethics and inappropriate uses of AI have led to concerns about slowing AI development in the West, the Chinese government and Chinese tech companies are taking steps to ensure that concerns over ethics and other problems are not perceived to hamper innovation in China. One means is by acknowledging risks without articulating them. Alibaba's Jack Ma has acknowledged the risks that come with AI, but Alibaba itself is not involved with national or international ethics groups and does not have an internal ethics division.[66] From this perspective, the government can define ethics if and when necessary, after the fact. This paradigm is not limited to tech companies. For example, Zhou Haijiang, the CEO and Party Secretary of the Hodo Group, explains how Western corporate management fails to consider the interests of society. Chinese corporate management, on the other hand, includes the input of the CCP, and thus naturally takes into account the interests of society (as defined by the Party).[67] Party input is likely not as visible as that of internal ethics committees and large AI and ethics societies, thus offering the perception (whether true or not) that Alibaba can develop AI unhindered. Of course, Chinese tech companies have shown some publicly concern about ethics. Tencent published a book on the ethics of AI in which it follows other international writings about ethics, including requirements that the embedded norms and values in AI systems are transparent.[68] It is less

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[64] CB Insights Reporters, *China's Surveillance State: AI Startups, Tech Giants Are At the Center of the Government's Plans*, CB INSIGHTS (Mar. 20, 2018), https://www.cbinsights.com/research/china-surveillance-ai/?utm_source=CB+Insights+Newsletter&utm_campaign=7d63162f02-Top_Research_Briefs_03_24_2018&utm_medium=email&utm_term=0_9dc0513989-7d63162f02-89514441.

[65] Economist Reporters, *supra* note 7.

[66] Knight, *supra* note 33.

[67] Economist Reporters, *China's Communist Party Meets the World*, THE ECON. (Mar. 28, 2018), https://www.economist.com/news/china/21739659-socialism-chinese-characteristics-explained-sort-chinas-communist-party-meets-world.

[68]Rengongzhineng: Guojia Rengongzhineng Zhanlüe Xingdong Zhuashou (人工智能：国家人工智能战略行动抓手) [*Artificial Intelligence: National Artificial Intelligence Strategic Movement Conception*], Tengxun Rengongzhineng Yanjiuyuan (腾讯人工智能研究院) TENCENT AI RESEARCH LAB (2017).

clear who gets to place the boundaries on communities and who gets to define each community's values.

The Chinese government has also started issuing standards. CESI's white paper, for example, articulates how standardization will "solve" (解决) complex problems surrounding different deployments (不同的应用场合) of AI.[69] It is less clear what "solving" different AI-related problems means. The document describes setting standards as a "key element" (关键因素) of global AI competition and reiterates the aggressive language of the New Generation AI Development report demanding that China make various "breakthroughs" (突破) in AI foundational theory.[70] It also encourages utilizing the principle of "urgently get ahead, comprehensively take the lead,"[71] in order to develop technical terminology, reference frameworks, platforms, and other necessary standards to generally increase China's rhetorical power (话语权) internationally.[72] At this point, whether AI will bring transformation, and whether China's AI goals will be successful or end in failure, are questions that can only be answered with time. The rhetoric, however, is imposing in the present. It allows China to project a success that has not yet manifested, to fake it until they make it.

B. CRITIQUES OF THE RHETORICAL NATIONAL PLAN

Rhetoric is often different from substance. As Creemers notes, "many of the goals of [the National AI Plan], thus far, remain exactly that: future goals."[73] Combined with the ambiguity of what actually constitutes AI, assessing AI plans and strategies becomes slippery. Currently, this dynamic works to the advantage of marketers and governments trying to sell AI as a magical solution to myriad problems. When AI is a contest that is not clearly defined, it is easier to say that

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69 CHINESE ELECTRONICS STANDARDIZATION INST., *supra* note 30, at 45 ("随着不同的应用场合对智能等级评价需求的进步明确，需要标准化工作来逐步解决该问题。").

70 *Id.* at 59.

71 This is my translation of "急用先行、成熟先上." Without greater context, it is unclear if this phrase is a "carpe diem" encouragement to get ahead or a strategic pattern of taking the lead of, and thus being able to control, a technological, political, or rhetorical movement. The latter has greater consequences for other participants in the contest.

72 CHINESE ELECTRONICS STANDARDIZATION INST., *supra* note 30, at 45.

73 Creemers, *supra* note 49, at 123.

you are winning. When AI is supposed to solve grand problems that are not clearly defined, it is easier to define the technology as successful.

So, who is currently "winning" the AI contest? Naturally, different definitions lead to different winners. According to Dr. Kai-fu Lee, China is in the lead or will be leading very soon. He defines AI as "four distinct waves of applications," including Internet AI, Business AI, Perception AI, and Autonomous AI, and states that analyzing a country's AI capabilities requires a "nuanced understanding of these different AI domains, along with other variables, such as the amount of data, quality of talent, and availability of cutting-edge hardware."[74] Lee claims that China is leading or on the cusp of leading three of the four core AI applications (Internet AI, Perception AI, and Autonomous AI) but will lag in Business AI. In a recent book, he argues that research and development of AI is less important now than implementation of the technology across various industries, and that China is poised to lead in this "implementation age."[75]

On the other hand, Jeff Ding, in his *Deciphering China's AI Dream*, analyzes AI national competencies by looking at "Main Drivers in AI." According to him, the U.S. is leading in terms of AI hardware (chip financing and market share), research and algorithms (number of AI experts and percentage of conference presentations), and the commercial AI sector (proportion of the world's AI companies). China is leading in terms of data access due to its massive online mobile market. Combining each of these factors, Ding generated an "AI potential index score" in which China scored 17 and the U.S. scored 33.[76] The U.S. is clearly leading per this means of analysis. It would appear from the fact that these different definitions exist that when it comes to AI, maintaining a preponderance or monopoly of the legitimate right to define it is also key to determining who "wins." From this perspective, AI might not even have to actually improve people's lives and be a "transformative technology"; people just have to describe it as having done so.

Another reason to view China's AI push as more rhetorical than substantial is that it appears that people in China really are concerned about potential risks, particularly privacy. China's tech companies, like others across the world, often exaggerate the capabilities of their products. For instance, according to Ding, the articulation of the

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[74] Lee & Triolo, *supra* note 8, at 2.

[75] KAI-FU LEE, AI SUPERPOWERS: CHINA, SILICON VALLEY, AND THE NEW WORLD ORDER (2018).

[76] Ding, *supra* note 15, at 29.

national AI plan has also seen "the emergence of a major debate over privacy protections."[77] The notion that the Chinese public is simply less concerned about privacy is overly simplistic. Just as in other countries, there are debates between advocates for greater data privacy protections and advocates for data liberalization to benefit AI technologies.[78] According to a survey conducted by China Central Television and Tencent Research, almost 80% of respondents think that AI is a threat to privacy. 31.7% also stated that they felt the technology threatened their livelihoods.[79] Data from the Internet Society of China indicates that 54 percent of the nation's internet users are concerned about personal data breaches, describing such instances as "severe."[80] Despite Baidu CEO Robin Li's claims that the Chinese public is more willing to trade privacy for convenience, Baidu has recently been sued over allegations of violating user privacy.[81] In response to Li's comments, a number of Chinese netizens responded with anger, calling the comments "shameless" and pointing out that "they were forced" to surrender their privacy.[82]

Of course, tech companies exaggerating their capabilities and future success are hardly new or unique to China. In the case of China, however, the close relationship between the private sector and the government has created a greater impetus to exaggerate the hospitability of the Chinese market towards AI; there is both an economic and *political* impetus to do so. CEOs pitching friendly business environments are not unique to Chinese tech companies, but it is important that the pitch matches government rhetoric so well.

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77 *Id.* at 19.

78 Frank Hersey, *Almost 80% of Chinese Concerned About AI Threat to Privacy, 32% Already Feel a Threat to Their Work*, TECHNODE (Mar. 2, 2018), https://technode.com/2018/03/02/almost-80-chinese-concerned-ai-threat-privacy-32-already-feel-threat-work/.

79 *Id.*

80 Tech Crunch Reporters, *China's Citizens Do Care About Their Privacy, Actually*, TECH CRUNCH (2018), https://mytechcrunch.com/chinas-citizens-do-care-about-their-data-privacy-actually/.

81 Han Wei, *Baidu Sued Over Claim It Illegally Obtained Users' Data*, CAIXIN GLOBAL (Jan. 9, 2018), https://www.caixinglobal.com/2018-01-09/baidu-sued-over-claim-it-illegally-obtained-users-data-101195257.html.

82 Xinmei Shen, *Chinese Internet Users Criticize Baidu CEO for Saying People in China are Willing to Give Up Data Privacy for Convenience*, ABACUS NEWS (Mar. 28, 2018), https://www.abacusnews.com/big-guns/chinese-internet-users-criticize-baidu-ceo-saying-people-china-are-willing-give-data-privacy/article/2139313.

IV. AI'S MAIN PERCEIVED BENEFIT: CONTROL

China's rhetoric surrounding AI and its stated goals for the technology fit succinctly into institutional changes leading towards increased ideological centralization and control that are already underway in the country. The ambiguous definition of AI combined with the Chinese government's emphasis on rhetorical control over substance presents a murky picture of the technology and its future, both in China and abroad. Will China's growing attempts to regulate and pass laws governing the technology offer clarity? At this juncture, I think the answer is no. This reliance on data and high-tech solutions is based on the belief that social problems can be solved with technology—that problems of information sharing, dishonest behavior, and other social ills can be coded away. This is a problematic assumption for a myriad of reasons.[83] At this juncture, however, the government is moving full steam ahead. This paradigm of an intense faith in the general power of technology without much concern for complimentary institutional change appears to be politically expedient, and thus unlikely to change.

The Chinese government's key motivation with AI is to strengthen its own control over the technology and to generally dictate how it is understood and deployed, regardless of what it "is." In addition to articulating that AI is a game changer, the Chinese government has also placed economic bets on the technology's future by investing funds in provincial and city governments as well as AI companies and startups.[84] It is investing too much hype, rhetoric, and money into this technology to risk market forces without political control. As a result, two primary characteristics of the government's investment in AI have been: (1) utilization of the hype around AI to further catalyze increased control over big tech companies as part of a greater push towards centralization, and (2) more enthusiastic efforts to both create and control as much data as possible.

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[83] Karman Lucero, *The Specter of China's AI Dreams* [unpublished manuscript on file] (Aug. 2019). There is a growing body of evidence suggesting that there are technical limits regarding the possibility of defining large, complex social problems in ways that are amenable to machine learning, deep learning, or other algorithmic processes with the label of "AI." The ways that AI has "solved" issues in different social and legal contexts have encouraged a greater amount of attention towards the ways that AI, instead of inoculating decision-making processes from human biases, instead codify and replicate them at scale.

[84] Lee & Triolo, *supra* note 8, at 10.

A. MORE DATA = GREATER SOCIAL CONTROL

Historically, China, like other countries, has faced problems of local government corruption, inaction, and general unwillingness to implement central government policy. There is a saying that "the mountains are tall and the emperor is far away" (山高皇帝远). The Chinese government views big data and AI as a solution to this perennial problem—algorithms can skip the intermediate step of local officials and collect information directly from the people and maybe even directly execute policies. AI-powered social management tools include predictive policing, widespread monitoring of dissidents, and requirements that domestic and foreign firms operating in China collect, store, and hand over data.[85] In addition to deploying these tools, the government is also increasing the pressure on private tech companies to build this new infrastructure of control.

China's internet companies have recently been subject to increasing scrutiny, ranging from increased government control over online payment platforms to clampdowns on internet-based video games.[86] In the words of an anonymous tech lawyer interviewed by the *Financial Times*, recent steps go beyond censorship and towards "an internet completely controlled and monitored by the government."[87] This is also true of foreign organizations working within the Chinese internet ecosystem, as many are increasingly pushed to use state-approved virtual private networks (VPNs) to get around China's censors to access banned sites (such as Facebook and Youtube). Lester Ross, a lawyer at WilmerHale, explains that "China's intention is to control the flow of information entirely, making people use only government-approved VPNs by making it difficult, if not impossible, to use alternatives."[88] The government wants to be able to control, and if necessary, shut down, the "data border" with as much flexibility as possible.[89]

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85 James Palmer, *Nobody Knows Anything About China*, FOREIGN POL'Y (Mar. 21, 2018), https://foreignpolicy.com/2018/03/21/nobody-knows-anything-about-china/.

86 Louise Lucas, *Beijing's Battle to Control its Home-Grown Tech Giants*, FIN. TIMES (Sept. 21, 2017), https://www.ft.com/content/36cd5f2c-94c5-11e7-bdfa-eda243196c2c.

87 *Id.*

88 Yuan Yang et al., *China Disrupts Global Companies' Web Access as Censorship Bites*, FIN. TIMES (Jan. 16, 2018), https://www.ft.com/content/80e50a6c-fa8a-11e7-9b32-d7d59aace167.

89 *Id.*

In parallel with AI development and increased internet control, the Chinese government is deploying other ambitious plans across the country, such as the social credit system (社会信用体系), a set of mechanisms used to influence the behavior of citizens and organizations via "trustworthiness." If executed as planned, the social credit system would give the government the power to reward behavior it finds financially, economically, and socio-politically responsible while punishing noncompliant or subversive behavior. This includes the creation of a national unique identification system for both citizens and businesses that can then be tracked and rated with the help of AI, a program that Rogier Creemers describes as "nation building"[90]—a means of making the "administrative process more efficient and effective" while also making it possible to ensure that businesses and individuals are following certain processes.[91] The social credit system is broader than financial credit scoring systems in at least three ways: a broader range of criteria used to evaluate one's rating, the spectrum and efficient enforcement of punishments for non-compliant behavior, and the increased use of digital censors and AI-powered devices that can continuously collect and analyze data in real time.[92] It is important to note, however, that at least at this time, these are all goals that have not necessarily found their way to reality yet. For instance, there is no one "national social credit score" for each individual, nor is there a single social credit system, but rather a disparate set of pilot programs that collect and utilize data in different ways. Scores and other behavior-shaping tools such as blacklists are generally kept in an ad hoc manner by local governments and private companies. Coordinating these different efforts will likely be logistically challenging.[93] In the meantime, the government's description of the social credit system as one that will "scientifically" improve trustworthiness and "lessen

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90 Dev Lewis, *Interview with Dr. Rogier Creemers: AI + Social Credit + Algorithmic Governance + Cybersecurity + VPNs*, DIGITAL ASIA HUB (Aug. 14, 2017), https://www.digitalasiahub.org/2017/08/14/interview-with-dr-rogier-creemers-ai-social-credit-algorithmic-governance-cybersecurity-vpns-cross-border-dataflows/.

91 *Id.*

92 Mareike Ohlberg et al., *Central Planning, Local Experiments The Complex Implementation of China's Social Credit System*, MERCATOR INST. FOR CHINA STUD. (Dec. 12, 2017), https://www.merics.org/sites/default/files/2017-12/171212_China_Monitor_43_Social_Credit_System_Implementation.pdf.

93 Jamie Horsley, *China's Orwellian Social Credit Score Isn't Real,* FOREIGN POL'Y (Nov. 16, 2018), https://foreignpolicy.com/2018/11/16/chinas-orwellian-social-credit-score-isnt-real/.

contradictions" meshes with AI Development Plan's language of utilizing technological solutions to solve social problems.[94]

Many of the government's recent large investments have been in AI-powered technologies that can also be used to strengthen a surveillance state. Facial recognition depends on AI to identify specific people, license plates, and other identifying features. In 2017, Chinese entities filed for 530 video surveillance patents, more than five times the number of similar patents filed by U.S. entities.[95] The cameras can track people walking down the street or in public transit stations, identify homeless people on the streets, and pay attention to who is associating and meeting with whom, which can include identifying people who have religious beliefs and attend services.[96] Other examples include tracking how much toilet paper people are using in public restrooms and shaming jaywalkers.[97] China's integrated security platform, the "Integrated Joint Operations Platform," collects unprecedented amounts of data on over 13 million ethnic and religious minorities in the northwest Xinjiang region. This data is used for surveillance purposes as well as to justify the unlawful detention of over 1 million Uyghurs.[98]

Tech companies play key roles in these deployments as arms of the state. Reporters Liza Lina and Josh Chin describe how Tencent and Alibaba assist the government in "hunting down criminal suspects, silencing dissent, and creating surveillance cities."[99] Tech companies also play an important role in the development of China's apartheid-like

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94 Guanyu Yinfa Shehui Xinyong Tixi Jianshe Guiha Gangyao (2014-2020 Nian) de Tongzhi (关于印发社会信用体系建设规划纲要（2014—2020 年）的通知) [Notice - Planning Outline for the Construction of the Social Credit System] (promulgated by the St. Council, June 14, 2014), http://www.gov.cn/zhengce/content/2014-06/27/content_8913.htm.

95 Louise Lucas, *Patent Filings Reflect China's Zeal for Facial Recognition Tech*, FIN. TIMES (Mar. 22, 2018), https://www.ft.com/content/d7abd486-2ce2-11e8-9b4b-bc4b9f08f381?utm_source=CB+Insights+Newsletter&utm_campaign=dd158dc7c2-MonNL_03_26_2018&utm_medium=email&utm_term=0_9dc0513989-dd158dc7c2-89514441.

96 CB Insights Reporters, *supra*, note 64.

97 Rene Chun, *China's New Frontiers in Dystopian Tech*, THE ATLANTIC (Apr. 2018), https://www.theatlantic.com/magazine/archive/2018/04/big-in-china-machines-that-scan-your-face/554075/.

98 *China's Algorithms of Oppression*, HUMAN RIGHTS WATCH (May 1, 2019), https://www.hrw.org/report/2019/05/01/chinas-algorithms-repression/reverse-engineering-xinjiang-police-mass-surveillance.

99 Liza Lin & Josh Chin, *China's Tech Giants Have a Second Job: Helping Beijing Spy on Its People*, WALL STREET J. (Nov. 30, 3017), https://www.wsj.com/articles/chinas-tech-giants-have-a-second-job-helping-the-government-see-everything-1512056284.

control of ethnic minorities in the Xinjiang region.[100] Private tech firms in China are also exporting surveillance technologies and the ideology of a digital panopticon that goes with them.[101] In addition to the national plans, the CCP needs its own big tech giants to implement its AI-powered ambitions. As a result, rhetorical control over what AI is, and should become, goes hand in hand with increased bureaucratic centralization and control over China's tech companies, both large and small.

B. THE "CORRECT" WAY TO SERVE SOCIETY—INCREASED CENTRALIZATION AND CONTROL OVER TECH COMPANIES

Institutional change has been a common facet of the People's Republic of China since its founding in 1949. Since then, there have been four different constitutions with the latest having five amendments (the latest round included, among other things, the removal of presidential term limits).[102] The current constitution's ("PRC Constitution") third chapter outlines the main organs of the government: the NPC, a unicameral legislature that has a "supervising" role over other political bodies; the State Council, an organization that is composed of ministry and Party heads and acts as a cabinet and the highest level administrative organization with de facto legislative powers;[103] the State Central Military Commission which directs the Party's army; the Supreme People's Court, the "highest judicial organ" that, in addition to being a court, issues guidance and regulatory documents for other courts; and the Supreme People's Procuratorate, which is the nation's highest prosecutor's office.[104]

The Preamble of the PRC Constitution states that the Chinese people are led by the CCP. Beyond that, the CCP has an extra-constitutional status as de facto leader of each government organ, and increasingly, the various organizations throughout Chinese society. The

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100 Agence France-Presse, *China's Hi-Tech Police State in Fractious Xinjiang a Boon for Security Firms*, SOUTH CHINA MORNING POST (June 27, 2018), https://www.scmp.com/news/china/diplomacy-defence/article/2152749/chinas-hi-tech-police-state-fractious-xinjiang-boon.

101 Paul Mozur et al., *Made in China, Exported to the World: the Surveillance State*, N.Y. TIMES (Apr. 24, 2019), https://www.nytimes.com/2019/04/24/technology/ecuador-surveillance-cameras-police-government.html.

102 XIANFA [CONSTITUTION] (宪法), Preamble (1982) (China), http://www.npc.gov.cn/zgrdw/englishnpc/Constitution/node_2825.htm.

103 Susan Lawrence, *China's Political Institutions and Leaders in Charts*, CONG. RES. SERV. (Nov. 12, 2013), https://fas.org/sgp/crs/row/R43303.pdf.

104 XIANFA, *supra* note 102.

constitution of the CCP describes the CCP as the "vanguard" of the Chinese people and articulates a strict structure of leadership.[105] While there is not explicit language in either the PRC Constitution or the CCP constitution that states that the CCP must control every organ of government, Party leadership is implied—the Party controls the leadership of each government body and operates Party committees within each of them.[106] Many organizations, such as the police, some ministries, and some courts report directly to the Central Party Commission, as opposed to the State Council or the NPC which the PRC Constitution labels as "the highest organ of state power."[107] The CCP constitution also states that the CCP has leadership over society: "[T]he Party commands the overall situation and coordinates the efforts of all quarters, and the Party must play the role of core of leadership among all other organizations."[108] Many Party organizations exist outside the bounds of articulated law. The Politburo and Politburo Standing Committee, for example, while not mentioned in the PRC Constitution, serve as the primary organizations of leadership in the country. While its existence is articulated in the latest amendments to the PRC Constitution, the recently created National Supervision Commission is a new Party disciplinary organization that operates with extensive powers of detention that are inconsistent with rights articulated by the PRC Constitution and legislation passed by the NPC.[109]

In recent years, the Party leadership has worked to further entrench its powers not only within the government, but also the larger Chinese society as well. Centralization has been a common theme in China across many different sectors. For example, the government has recently created three super agencies—for managing environmental pollution (now overseen by the Ministry of Ecological Environment), financial recklessness, and official corruption (now overseen by the National Supervision Commission).[110] The China Banking Regulatory

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105 Zhongguo Gongchang Dang Zhangcheng (中国共产党章程) [Rules of the Chinese Communist Party] (last amended Oct. 2017), http://www.12371.cn/special/zggcdzc/zggcdzcqw/.

106 Lawrence, *supra* note 103.

107 XIANFA, *supra* note 102, § 1 art. 57.

108 Party Rules, *supra* note 105.

109 Jerome Cohen, *Law's Relation to Political Power in China: A Backward Transition*, SOC. RES.: INT'L Q. (Draft, Mar. 18, 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3354939.

110 Chris Buckley & Keith Bradsher, *China Unveils Superagencies to Fight Pollution and Other Threats to Party Rule*, N.Y. TIMES (Mar. 13, 2018), https://www.nytimes.com/2018/03/13/world/asia/china-xi-jinping-congress-pollution-corruption.html?mabReward=ACTM3&recid=11mCTMkNQGt9cPAdwc

Commission and the China Insurance Regulatory Commission became one Banking and Insurance Regulatory Commission.[111] Other examples of centralization include the Ministry of Natural Resources (combining the previously existing Ministry of Land Resources, State Oceanic Administration, and National Administration of Surveying, Mapping, and Geoinformation) and the State Market Regulatory Administration (combining the previously existing State Administration for Industry and Commerce, State Administration for Quality Supervision and Quarantine, and State Administration of Food and Drug Administration).[112]

The broad patterns of centralization are likely driven by a desire for increased efficiency, greater administrative coordination, and more effective political control. However, bureaucratic centralization is not only a means of potentially increasing administrative efficiency; it is also a performative demonstration of the central government's commitment to fixing systemic problems. In order to enforce discipline, bureaucratic centralization deepened in tandem with ideological centralization. Wang Qishan, the Vice President, former head of the National Supervision Commission, and puppet master of the anticorruption campaign, has seen his own power increase over the last couple of years.[113]

This reinvigoration of ideology has spread to Chinese companies as well. Across the board, the CCP has an increased presence, image, and authority. During an important speech in 2014, President Xi stated that the legal system, the legislature, the media, and all social and economic organizations must always "serve" the Party and operate under the Party's strict control.[114] Previously, companies tended to downplay the role of the Party in business. That has recently changed. At the most recent China Development Forum, an event that hosts company leaders from across the world, government speakers stressed the importance of the Party and stated that it "pursues happiness for the

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GXA8EX3w6&recp=4&action=click&pgtype=Homepage&region=CColumn&module=Recommendation&src=rechp&WT.nav=RecEngine&mtrref=www.nytimes.com.

111 Gabriel Wildau, *China to Merge Banking and Insurance Regulators,* FIN. TIMES (Mar. 12, 2018), https://www.ft.com/content/368f3200-265c-11e8-b27e-cc62a39d57a0.

112 *Id.*

113 Charlotte Gao, *Wang Qishan Returns to China's Political Stage*, THE DIPLOMAT, (Jan. 30, 2018), https://thediplomat.com/2018/01/wang-qishan-returns-to-chinas-political-stage/.

114 Patrick Boehler & Vanessa Piao, *Xi Jinping's Speech on the Arts is Released, One Year Later*, N.Y. TIMES (Oct. 15, 2015), https://sinosphere.blogs.nytimes.com/2015/10/15/xi-jinping-speech-arts-culture/.

Chinese people."[115] One staff member of a State-owned company in Wuhan described how the staff must regularly meet in "study groups" to examine the words of President Xi and write essays of self-criticism (in which they have to discuss their failings as state employees and party members).[116] This same employee stated that business has not suffered as a result of these study groups.[117] In a recent article, Hu Deping, the son of former leader Hu Yaobang, expressed concern about the growing trend of pressuring private enterprises into public-private partnerships, which, if accelerated, could effectively snuff out private enterprises altogether.[118]

Alibaba's CEO, Jack Ma, has stated that in China the government and tech companies have a good relationship but "don't marry." [119] Other commentators have argued that Chinese tech companies' vibrancy is the result of less government interference—that this is one of the reasons China's tech giants have grown so enormously, particularly when compared to clunky, lethargic stated-owned enterprises.[120] However, this dynamic also seems to be changing due to the gravity of increased bureaucratic and ideological centralization. If AI is going to have such an impact on society, it too must answer to the Party.

This change is evident within tech companies as well as the government itself. The Chinese People's Political Consultative Conference, a political advisory body, used to be made up primarily of infrastructure and property developers. Now, all 2,158 delegates are

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115 Economist Reporters, *supra* note 59.

116 Economist Reporters, *Xi Jinping is Using His Growing Authority to Amass Even More*, THE ECON. (Mar. 8, 2018), https://www.economist.com/news/china/21738333-hopes-bold-economic-reforms-look-forlorn-xi-jinping-using-his-growing-authority-amass.

117 *Id.*

118 *Signs of China (3),* CHINA CHANGE (Sept. 30, 2018), https://chinachange.org/2018/09/30/signs-of-china-3/?utm_source=HRIC+Updates&utm_campaign=01788b1207-EMAIL_CAMPAIGN_2018_10_01_08_28&utm_medium=email&utm_term=0_b537d30fde-01788b1207-259225973.

119 Li Yuan, *The Uncomfortable Marriage Between China and its Tech Giants,* WALL STREET J. (Mar. 8 2018), https://www.wsj.com/articles/the-godfathers-of-chinese-tech-get-an-offer-they-cant-refuse-1520510404.

120 John Wu, *Despite China Favoring State Owned Enterprises, Its Private Companies are More Innovative and Productive*, INFO. TECH. & INNOVATION FOUND. (Nov. 29, 2016), https://itif.org/publications/2016/11/29/despite-china-favoring-state-owned-enterprises-its-private-companies-are.

from technology firms.[121] According to the *South China Morning Post*, this change is due to the Chinese government wanting to "gain an edge in every technological field from AI to big data and robotics."[122]

The Chinese government has also at least attempted to take a more hands-on role within China's tech companies, in part by pushing them to offer a stake in the company and thus a seat on the board.[123] Party representatives likely have greater sway over corporate decision-making than the average single shareholder. These stakes are called "special management shares" and can effectively allow government officials to influence company decision-making and more easily monitor content that appears on the company's online platforms.[124] Louise Lucas, writing in the *Financial Times*, refers to China's tech companies as "state overseen enterprises."[125] Similarly, Chris Balding, writing in *Bloomberg*, states that the Chinese government is "quasi-nationalizing" its tech companies.[126]

Some tech companies have taken their own initiative to embrace more involved party control. Baidu, for example, has instituted a party committee. Such committees are often chaired by communications specialists whose primary role is to manage relationships with Party leaders. Baidu, Alibaba, and Tencent have been sure to demonstrate loyalty to the Party in order to maintain favorable relations with the government.[127]

Another strategy that the government has employed to exert control is more heavy-handed regulation, including more stringent enforcement of existing laws. For instance, online content regulators have recently cracked down even on large companies, including popular

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121 Xie Yu & Sidney Leng, *Tech Entrepreneurs Replace Real Estate Tycoons as Political Advisers in China's Push for IT Edge,* SOUTH CHINA MORNING POST (Mar. 4, 2018), http://www.scmp.com/business/companies/article/2135642/tech-entrepreneurs-replace-real-estate-tycoons-political-advisers.

122 *Id.*

123 Li Yuan, *Beijing Pushes for a Direct Hand in China's Tech Firms*, WALL STREET J. (Oct. 11, 2017), https://www.wsj.com/articles/beijing-pushes-for-a-direct-hand-in-chinas-big-tech-firms-1507758314.

124 Ding, *supra* note 15, at 5.

125 Louise Lucas, *The Chinese Communist Party Entangles Big Tech*, FIN. TIMES (July 19, 2018), https://www.ft.com/content/5d0af3c4-846c-11e8-a29d-73e3d454535d.

126 Chris Balding, *China is Nationalizing its Tech Sector*, BLOOMBERG, (Apr. 11, 2018), https://www.bloomberg.com/opinion/articles/2018-04-12/china-is-nationalizing-its-tech-sector.

127 Emily Feng, *Chinese Tech Groups Display Closer Ties with Communist Party*, FIN. TIMES (Oct. 10, 2017), https://www.ft.com/content/6bc839c0-ace6-11e7-aab9-abaa44b1e130.

news aggregator Toutiao (valued at $20 billion in a funding round in 2018).[128] In response, the company promised to hire 4,000 new censors and make more efforts to ensure that their content "respects socialist values."[129] Insurance Group China Pacific Insurance amended its Articles of Association to indicate that key corporate decisions will first seek the opinions of its internal Party group.[130] Some tech companies, including Alibaba, Tencent, and Baidu, have police-embedded cells in which employees hand over sensitive information to the government without any apparent legal process.[131] This push extends to international companies as well. International car maker Honda, for example, had to change its legal documents in order to give the Party a say in how its Chinese factories are run, including the right to disagree with hiring and other personnel decisions.[132] Other companies have reported concerns about growing involvement of the CCP in their day-to-day activities and communications.[133]

The CCP views securing greater control over tech companies via political influence and regulatory force as a prerequisite for expanding its ambitions concerning AI, both within China and across the world. Previously, Chinese state-owned enterprises were labeled "National Champions," in that they globally advanced China's economic and political interests. "National Champion" status includes a vertical party

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128 Tom Hancock, *China Internet Group Toutiao Hit by Content Crackdown*, FIN. TIMES (Apr. 11, 2018), https://www.ft.com/content/d3d5ebba-3d60-11e8-b7e0-52972418fec4.

129 *Id.*

130 Alexandra Stevenson, *China's Communists Rewrite the Rules for Foreign Businesses*, N.Y. TIMES (Apr. 13, 2018), https://www.nytimes.com/2018/04/13/business/china-communist-party-foreign-businesses.html?module=WatchingPortal&region=c-column-middle-span-region&pgType=Homepage&action=click&mediaId=thumb_square&state=standard&contentPlacement=21&version=internal&contentCollection=www.nytimes.com&contentId=https%3A%2F%2Fwww.nytimes.com%2F2018%2F04%2F13%2Fbusiness%2Fchina-communist-party-foreign-businesses.html&eventName=Watching-article-click&mtrref=www.nytimes.com&gwh=28D8371AB1AD46F863A064836E42809E&gwt=pay.

131 Liza Lin & Josh Chin, *China's Tech Giants Have a Second Job: Helping Beijing Spy on its People*, WALL STREET J. (Nov. 30, 2017), https://www.wsj.com/articles/chinas-tech-giants-have-a-second-job-helping-the-government-see-everything-1512056284.

132 *Id.*

133 Simon Denyer, *Command and Control: China's Communist Party Extends Reach into Foreign Companies*, WASH. POST (Jan. 28, 2018), https://www.washingtonpost.com/world/asia_pacific/command-and-control-chinas-communist-party-extends-reach-into-foreign-companies/2018/01/28/cd49ffa6-fc57-11e7-9b5d-bbf0da31214d_story.html?noredirect=on&utm_term=.23ae69632ac3.

integration with corporate groups (meaning that company leaders are ultimately subordinate to party leaders).[134] Curtis Milhaupt and Li-Wen Lin describe how the designation of "National Champion" companies involved the creation of a "networked hierarchy" between state and corporate institutions.[135] Increasingly, tech companies fall under this category of "National Champions" due to their wealth, market share, increasing global presence, and perceived roles in realizing the CCP's dream of an AI-powered future. As a matter of fact, they have recently seen a great deal of success, both at home and abroad: Alibaba and Tencent have both surpassed the $500 billion market value.[136] As discussed above, the government is attempting to integrate a party controlled "network hierarchy" similar to those that exist in SOEs. Also, the central government has effectively resorted to referring to them as national champions in a more colloquial sense. The Ministry of Science and Technology named Baidu, Alibaba, Tencent, and a smaller voice intelligence specialist company called iFlytek as the effective flagships of China's AI development with different focuses.[137] Another company, SenseTime, was later added as the fifth lead, for intelligent vision.[138] Due to this status, these companies will receive increased government attention, support, and funding. According to Raymond Wang, a partner at the consultancy firm Roland Berger, this is the first time that some of China's largest tech companies have been named in such an ambitious national strategy. Comparatively, European countries and the US have fostered industry growth through governmental research and funding but "would never elevate individual companies like Google to lead national platforms."[139] So it appears that the future of AI, according to

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134 Li-Wen Lin & Curtis J. Milhaupt, *We are the (National) Champions: Understanding the Mechanisms of State Capitalism in China* (Columbia Law & Economist, Working Paper No. 409, 2011), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1952623.

135 *Id.*

136 Laura He, *Alibaba joins Tencent in the exclusive US$500 billion market value club*, SOUTH CHINA MORNING POST (Jan. 25, 2018), http://www.scmp.com/business/companies/article/2130497/alibaba-joins-tencent-exclusive-us500-billion-market-value-club.

137 Meng Jing & Sarah Dai, *China Recruits Baidu, Alibaba and Tencent to 'National Team'*, SOUTH CHINA MORNING POST (Nov. 21, 2017), http://www.scmp.com/tech/china-tech/article/2120913/china-recruits-baidu-alibaba-and-tencent-ai-national-team.

138 Shi Li, Shangtang Chengwei Diwu Da Guojia Rengongzhineng Kaifang Chuangxin Pingtai (商汤成为第五大国家人工智能开放创新平台) [*SenseTime becomes the fifth large national AI open innovation platform*], LEIFENG WANG (Sept. 20, 2018), https://www.leiphone.com/news/201809/Xf5pNSS103T1cZMh.html.

139 *Id.*

the Chinese government, is not only something that China will control, but something that China will control via rhetoric, bureaucratic centralization centered around increased party control of tech companies, and, of course, laws, standards, and regulations.

Recent high profile and impactful laws that China has issued have been structured in a relatively ambiguous way, one that leaves specific compliance requirements unclear and that allows the government a great deal of flexibly in regards to implementation. The National Security Law of 2015, for example, outlines in great detail the scope of national security, with categories that collectively involve political and economic stability as well as diplomatic, economic, and technological secrets.[140] While the potential range of national security subjects is quite broad, the law limits such a classification to the "safety and benefit" of society.[141] Of course, it is unclear what "the safety and benefit of society" means. What is clear is that the central government gets to define the meaning and enforce the law as it sees fit, thereby creating for itself a kind of legal strategic ambiguity.[142] The advantages of this legal "strategic ambiguity" are discussed below.[143] Another example is the Cybersecurity Law of 2016. Its stringent requirements have led to uncertainties within the foreign investment community in China. The law requires government approval for work concerning cybersecurity, but it is not always clear where to apply, how long the process might take, and what sort of information is required.[144] The National Intelligence Law of 2017 similarly requires that organizations and citizens support, assist, and cooperate with national intelligence

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[140] Baoshou Guojia Mimi Fa (保守国家秘密法) [Law on Guarding State Secrets] (promulgated by the Standing Comm. Nat'l People's Cong., Sept. 5, 1988, rev'd Apr. 29, 2010, effective Oct. 1, 2010), http://baike.baidu.com/subview/67787/5109739.htm.

[141] *Id.*

[142] Others have used the term "strategic ambiguity" to describe different kinds of actions by the Chinese government in different contexts. Elsa Kania, for example, uses the term to describe China's approach to lethal autonomous weapons. *See, e.g.*, Elsa Kania, *China's Strategic Ambiguity and Shifting Approach to Lethal Autonomous Weapons Systems*, LAWFARE (Apr. 17, 2018), https://www.lawfareblog.com/chinas-strategic-ambiguity-and-shifting-approach-lethal-autonomous-weapons-systems.

[143] See discussion *infra* Section VI.A (Advantages: Strategic Ambiguity).

[144] Heifeng He, *Cybersecurity Law Causing 'Mass Concerns' Among Foreign Firms in China*, SOUTH CHINA MORNING POST (Mar. 1, 2018), http://www.scmp.com/news/china/economy/article/2135338/cybersecurity-law-causing-mass-concerns-among-foreign-firms-china.

work, another term that is not clearly defined.[145] According to Gregory Allen, media reports and anecdotal evidence indicate that the private sector in China is feeling more pressure and oversight from the central government.[146] There are also concerns that the Chinese government can act extra-legally in compelling private sector action. In a report on 5G security, the Australian government warned that Chinese companies may be subject to such "extrajudicial directions."[147]

Samantha Hoffman at the Australian Strategic Policy Institute describes the CCP's broad conception of "national security" as "mainly about protecting and promoting the Party's ideas" and for which "everyone is responsible."[148] In other words, the CCP increasingly requires private companies and individuals to both internalize its own broad conception of "national security" and enforce vague national security laws. Recently, this has tended towards a great deal of self-censorship, over-compliance, and increasing paranoia about what kind of material and actions are forbidden. For instance, microblogging platform Weibo has repeatedly censored LGBT-related material for fear that it might violate content regulation laws.[149] Similarly, the majority of internet censorship and monitoring is conducted not by the Ministry of State Security or similar government security organizations, but rather by tech companies that host online social media platforms.[150] Tencent's WeChat app, for example, automatically censors politically sensitive materials.[151]

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145 Guojia Qingbao Fa (国家情报法) [National Intelligence Law of the PRC] (promulgated by the Nat'l People's Cong., Apr. 27, 2018), http://en.pkulaw.cn/display.aspx?cgid=313975&lib=law.

146 Allen, *supra* note 50.

147 Joint Media Release, *Government Provides 5G Security Guidance to Australian Carriers*, MINISTERS FOR COMM., CYBER SAFETY, & ARTS (Aug. 23, 2018), https://www.minister.communications.gov.au/minister/mitch-fifield/news/government-provides-5g-security-guidance-australian-carriers.

148 Samantha Hoffman, China's State Security Strategy: 'Everyone is Responsible', AUSTRALIAN STRATEGIC POL'Y INST. (Dec. 11, 2017), https://www.aspistrategist.org.au/chinas-state-security-strategy-everyone-is-responsible/.

149 Christian Shepherd, *China LGBT Community Fears Crackdown after Weibo Content Vanishes*, FIN. TIMES (Apr. 15, 2019), https://www.ft.com/content/19ff4b36-5f7a-11e9-b285-3acd5d43599e?desktop=true&segmentId=7c8f09b9-9b61-4fbb-9430-9208a9e233c8#myft:notification:daily-email:content.

150 JAMES GRIFFITHS, THE GREAT FIREWALL OF CHINA 239–47 (2019).

151 Yuan Yang, *China's Tencent Pitches Vision of Artificial Intelligence Ethics*, FIN. TIMES (May 1, 2019), https://www.ft.com/content/f92abc38-6bb8-11e9-80c7-60ee53e6681d?utm_source=HRIC+Updates&utm_campaign=8606aede3a-EMAIL_CAMPAIGN_2018_12_04_11_54_COPY_01&utm_medium=email&utm_term=0_b537d30fde-8606aede3a-259225973.

Each of the laws involves national security and cyberspace, and their execution is likely to be influenced by President Xi's recently created National Security Commission (chaired by Xi himself). On trend, it is unclear how the new commission is going to operate, but it clearly has a great deal of authority over issues concerning national security and cyberspace. AI, particularly as articulated by the State Council, is a fundamental technology for the future of China's national security, cybersecurity, and general economic and social wellbeing. Chinese laws and standards governing AI accompany increased centralization and greater control over tech companies and are also structured in ambiguous ways that give a great deal of authority to the central government and cause confusion to businesses, lower level agencies, and individuals trying to comply with them.

V. ARTIFICIAL INTELLIGENCE LAWS AND REGULATIONS IN CHINA

Law is an important support for the development of technology. It builds the necessary institutions and incentivizes the networks necessary for the technology to develop as well as addresses harms and unforeseen consequences. It also has the capacity to define "appropriate" standards and uses of said technology, thus enshrining the leadership of market players who conform to the appropriate standards. In many cases, new law develops with new technology in a way that empowers the developers of that technology. For example, we live in a world increasingly reliant on mobile technology. Qualcomm is a leading company in the industry. Laws for that industry protect Qualcomm's leadership via intellectual property as well as a series of standards and norms that have come to define the wireless network itself. In other words, the arena of mobile market competition has been built and defined in large part by Qualcomm's standards.[152]

Is this also true with AI? The technical infrastructure of a wireless network is more concretely definable than is the term "AI," which, as discussed above, can mean so many different things in different industries. While there is an infinity of possible ways to develop and use AI, the continued creation of laws and standards will likely limit the number of practical ways it can be used. Technocrats in China have recognized the importance of law in terms of both institution-building and the securing of industry leadership. In

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152 Financial Times Reporters, *Digital Protectionism and National Security*, FIN. TIMES (Mar. 16, 2018), https://www.ft.com/content/112e233c-2912-11e8-b27e-cc62a39d57a0.

Tencent's book on AI, for example, the writers view institutions such as copyright and tort as contributing to the success and growth of Silicon Valley.[153] Also, government agencies and tech companies have started articulating standards of their own.[154] From this perspective, further articulating standards and laws governing AI will both foster innovation and secure China's leadership in the field. The aim is to articulate that there is a "right way" to both develop and use AI and that China will claim leadership of them both. In other words, the law of AI is the declaration of a monopoly over the legitimate development and use of AI, regardless of how one defines "AI." This monopoly is not yet claimed, and the process of "winning" it in China has so far involved the articulation of more plans, the empowering of various government agencies to regulate AI, and the articulation of standards that are supposed to guide the development and deployment of AI.

A. PLANS FOR THE FUTURE OF AI

AI is a new enough topic that, at this stage, the Chinese government has more "plans" than laws for it (though, of course, AI does not exist in a vacuum and many existing laws apply, as discussed below). The State Council's plan presented a timeline of AI regulation: by 2025, China will have established at least preliminary AI laws, regulations, and norms; by 2030, China will have instituted a more comprehensive set of AI laws and regulations.[155] There is not much information about these laws and regulations other than that they will exist and, since China will be a leader in AI, that these laws will govern a great deal, if not all, of global AI use. The State Council's plan and the general hype surrounding AI have increased the political relevance of plans regarding the technology's development and success. AI is a part of the "national will."[156] Since the issuance of the State Council's

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153 Ding, *supra* note 15, at 19.

154 CHINESE ELECTRONIC STANDARDIZATION INST., *supra* note 30. *See also* TENCENT AI RESEARCH LAB, *supra* note 68.

155 State Council Plan, *supra* note 3.

156 Qianzhan Chanye Yanjiuzhongxin (前瞻产业研究中心) [Forward Looking Industries Research Center], Yiwen Dai Ni Liaojie 2018 Nian Quanguo Gedi Rengongzhineng Hangye Zuixin Zhengce! (一文带你了解 2018 年全国各地人工智能行业最新政策！) [*One Article Helps You to Find Out About 2018's Newest Artificial Intelligence Industry Policies Across the Country*], QIAN JIA WANG (Mar. 5, 2018), http://www.qianjia.com/html/2018-03/30_288481.html. Thanks to Jeff Ding for sharing this via his newsletter, https://twitter.us12.list-manage.com/subscribe?u=63faf8cc530b40bbdb66435f7&id=119fc22940.

plan in July of 2017, central government agencies and provincial and city level governments have also drafted their own plans.[157] According to a report conducted by Tsinghua University, there are currently at least 845 provincial-level government AI policy documents describing "a series of support policies and funds geared toward strengthening AI technology R&D and product applications and promoting the integration of multiple fields."[158] Figure 1 below lists a small sample of them.

Central Government Agency Plans[159]	• AI Development Plan (State Council, led by New Generation AI Development Promotion Office) • Made in China 2025 (State Council, led by MIIT) • Internet+ and AI Three-Year Action Plan (NRDC) • Robotics Industrial Development Plan (2016-2020) • Three Year Action Plan for Advancing Development of a New Generation Artificial Intelligence Industry (Ministry of Industry and Information Technology) [160]
Provincial Government Agency Plans	• Guangdong (Guangdong Province New Generation AI Development Plan) • Fujian (Implementation Proposals Regarding Advancing the Accelerated Development of New Generation AI)

157 *Id.*

158 *China AI Development Report 2018*, CHINA INST. FOR SCI. & TECH. POL'Y TSINGHUA U. 78 (July 2018), http://www.sppm.tsinghua.edu.cn/eWebEditor/UploadFile/China_AI_development_report_2018.pdf.

159 Paul Triolo & Jimmy Goodrich, *From Riding a Wave to Full Steam Ahead*, NEW AMERICA DIGICHINA BLOG (Feb. 18, 2018), https://www.newamerica.org/cybersecurity-initiative/digichina/blog/riding-wave-full-steam-ahead/.

160 Steve Dickinson, *China's Artificial Intelligence Plan Stage 1*, CHINA LAW BLOG (Mar. 19, 2018), https://www.chinalawblog.com/2018/03/chinas-artificial-intelligence-plan-stage-1.html.

	• Sichuan (Sichuan Province New Generation AI Development Implementation Program) • Hebei (Hebei Province Three Year Action Plan for Development of Strategic Emerging Industries • Heilongjiang (Heilongjiang Province AI Industry Three Year Special Action Plan) • Liaoning (Liaoning Province New Generation AI Development Plan) • Jilin (Implementation Proposals regarding the New Generation AI Development Plan • Zhejiang (Zhejiang Province New Generation AI Development Plan" • Hubei (Donghu High-tech Zone AI Industry Plan) • Jiangxi (Notice Regarding Measures for Advancing the Promotion of AI and Smart Manufacturing Development) • Guizhou (Smart Guizhou Development Plan and Guizhou Province 'Internet +' and AI Special Action Plan) • Anhui (Anhui Province AI Industry Development Plan)
City Government Agency Plans	• Beijing (Beijing City Instructions on Accelerating Science and Technology Innovation and Cultivating AI Industry and Zongguancun National Independent Innovation Demonstration Zone AI Industry Cultivation Action Plan) • Shanghai (Implementation Proposals Regarding Shanghai's Pushing Forward of New Generation AI Development)

	• Tianjin (Tianjin City AI Science and Technology Innovation Special Action Plan) • Chongqing (Special Conference on Major AI Topic)

Figure 1 China's Many AI Plans (This list is not exhaustive)

Each of the plans has very similar language, with many directly parroting the State Council's plan. They are also similar to the State Council's plan in that they make grand pronouncements regarding the province's or city's AI-powered future. Also, like the State Council's plan, the plans are as ambitious as they are vague. For instance, Fujian's states that the province will have cultivated "more than 50 nationally influential AI . . . businesses"; Sichuan will have 30 such businesses. The city of Tianjin will develop breakthroughs in 100 "key general technologies" and Hebei Province will build 40 "innovative platforms." [161] Many of the plans, like the State Council's, offer monetary figures for the future size of their AI industries: Guangdong's core industries will be worth 150 billion RMB by 2025, Sichuan's will be worth 100 billion RMB by 2022, and Hebei's will be worth 100 billion RMB by 2020. [162] Heilongjiang, Liaoning, Beijing, Jilin, Zhejiang, Shanghai, and Anhui also include large numerical figures reflecting the future success of their respective AI industries. Chongqing, Jiangxi, and Guizhou's plans are different. Chongqing's is uniquely more concrete and realizable in that it plans AI conferences that will attract global attention, but also states that such attention will attract over 100 billion RMB in investments. Jiangxi's focuses on the development of AI products, manufacturing equipment, and AI services. Guizhou's focuses on developing smart infrastructure throughout the province.[163]

According to Kai-fu Lee, these plans, despite their imprecision, "have teeth" because they have timelines and metrics (however ambitious) and because it is very likely that both companies and government officials will make AI development a key priority. [164] These plans will see results because they reflect the political currency of the day. He cites previous plans on developing high-speed rail as examples that such plans lead to concrete results. At least some have come to

161 Qianzhan Chanye Yanjiuzhongxin, *supra* note 156.
162 *Id.*
163 *Id.*
164 Lee & Triolo, *supra* note 8, at 9.

partial fruition in garnering funding. For instance, Alibaba has pledged to invest $15 billion (USD) into developing AI research labs across the globe, including in Beijing's Zhongguancun (considered the Silicon Valley of China).[165] Hubei's national plan includes government investment of 100 million RMB a year into its Donghu innovation center.[166] Investors have poured US$4.5 billion into AI companies between 2012 and 2017.[167]

Another example of these plans' clear impact is the sheer number of agencies that have been created or assigned to govern AI, as examined next.

B. THE ORGANIZATIONS GOVERNING AI

Given the hype and political importance surrounding AI, a large number of institutions within the Chinese government have already been tasked with regulating and developing this area. In November of 2017, the Ministry of Science and Technology convened a high-level meeting during which it established the New Generation AI Development Promotion Office, the main entity responsible for implementing the AI Development Plan. It includes 15 different governmental organizations.[168] Figure 2 presents each of the 15 organizations (with a yellow background) within the hierarchy of the Chinese governmental organization.[169]

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165 Reuters Research Staff, *Alibaba Launces $15 Billion Overseas R&D Drive,* REUTERS (Oct. 11, 2017), https://www.reuters.com/article/us-china-alibaba-r-d/alibaba-launches-15-billion-overseas-rd-drive-idUSKBN1CG0HI.

166 Qianzhan Chanye Yanjiuzhongxin, *supra* note 156.

167 Lee & Triolo, *supra* note 8, at 6.

168 Ministry of Science and Technology, *supra* note 37.

169 Lawrence, *supra* note 103. *See also* Keyi Milian Ge (可以迷恋哥), Zhongguo Zhengfu Zuzhi Jiegou Tu (中国政府组织结构图) [*A Chart Showing the Makeup of Chinese Governmental Organizations*], BAIDU BAIKE (2019), https://wenku.baidu.com/view/a729f32bdc36a32d7375a417866fb84ae45cc3f1.html.

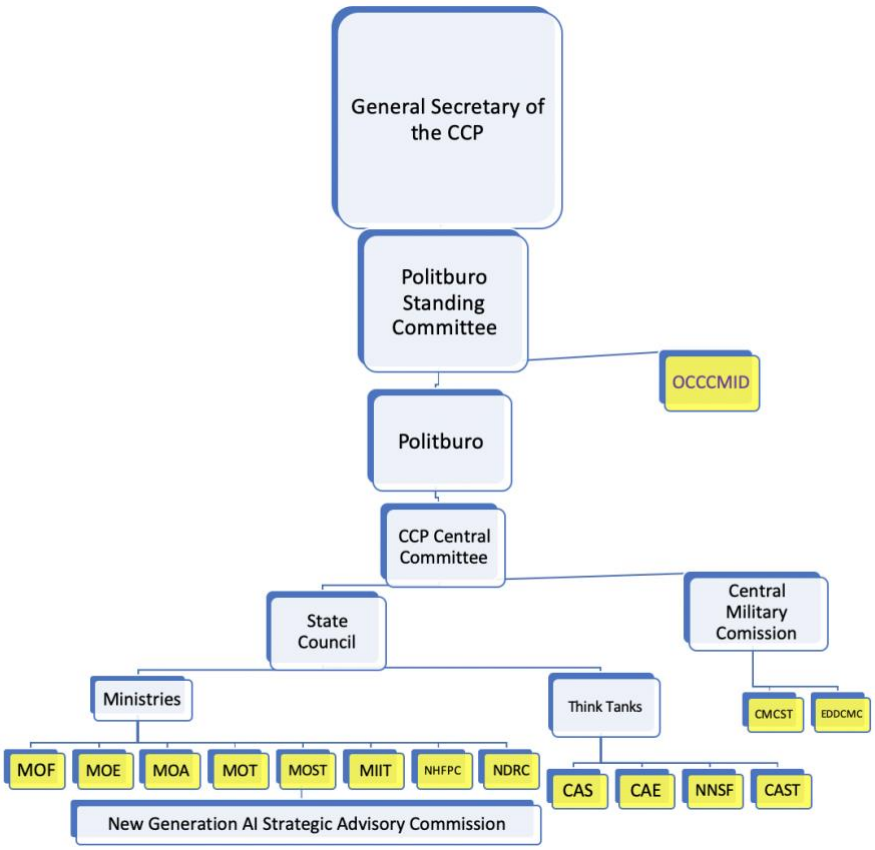

Figure 2 The Government Institutions Responsible for Regulating Artificial Intelligence in China

State Council- Ministries: (From left to right) Ministry of Finance, Ministry of Education, Ministry of Agriculture, Ministry of Transportation, Ministry of Science and Technology, Ministry of Industry and Information Technology, National Health and Family Planning Commission, Nation Development Reform Commission; Think Tanks: Chinese Academy of Sciences, Chinese Academy of Engineering, National Natural Science Foundation, Chinese Association for Science and Technology.

Military Organizations- Politburo Standing Committee: Office of the Central Committee of Civil-Military Fusion Development; Central Military Commission: Central Military Commission on Science and Technology, Equipment Development Department of the Central Military Commission.

At the top is the General Secretary of the CCP (Xi himself), followed by the Politburo Standing Committee, currently made up of the 7 top leaders in China, followed by the Politburo (an elite group of party leaders), followed by the CCP Central Committee, which oversees both the State Council, which is the primary regulatory body in the government, and the Central Military Commission. Note that the

highest-level government organization on this list is the State Council; the Party leadership organizations rank higher than, and directly control, the State Council. The majority of the organizations responsible for regulating AI are under the jurisdiction of the State Council, including the Ministry that articulated this governance regime, the Ministry of Science and Technology ("MOST"). The Military apparatus is separate from that of the government, but still subordinate to the leading Party institutions. There are two AI-regulating agencies under the Central Military Commission. However, the Office of the Central Committee of Civil-Military Fusion Development has a less clear relationship. It was established in January of 2017, is chaired by President Xi himself, and reports to the Politburo Standing Committee and the CCP Central Committee.[170] Its existence highlights the great emphasis that the Chinese leadership places on AI as a general use and military technology. In November 2017, MOST announced the creation of the New Generation AI Strategic Advisory Committee, an organization chaired by academic Pan Yunhe (an expert in advanced manufacturing) [171] which includes academics as well as experts from private sector companies including Baidu, Alibaba, Tencent, and others.[172] MOST also created the National Artificial Intelligence Standardization Group, which, like the New Generation AI Strategic Advisory Committee, is composed of government officials, academics, and industry representatives.[173] Lastly, an AI Industry Development Alliance was established with over 240 government agencies, private companies, and national institutes as signatories. It is apparently led by national institutes, such as the China Academy of Information and Communications Technology.[174] It is currently unclear how these different groups and subgroups interact or contribute to the governance of the technology.

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[170] Zhongyang Junmin Ronghe Fazhan Weiyuanhui (中央军民融合发展委员会), BAIDU BAIKE (2017), https://baike.baidu.com/item/%E4%B8%AD%E5%A4%AE%E5%86%9B%E6%B0%91%E8%9E%8D%E5%90%88%E5%8F%91%E5%B1%95%E5%A7%94%E5%91%98%E4%BC%9A/20395522?fr=aladdin.

[171] Triolo & Goodrich, *supra* note 159.

[172] Elsa Kania, *China's AI Agenda Advances*, THE DIPLOMAT (Feb. 14, 2018), https://thediplomat.com/2018/02/chinas-ai-agenda-advances/.

[173] Guojia Rengongzhineng Biaozhunhua Zongti Zu he Zhuanjia Zixun Zu Chengli (国家人工智能标准化总体组和专家咨询组成立) [National Artificial Intelligence Standardization Group and Specialists Consultation Group Established], CHINESE ELECTRONIC STANDARDIZATION INST. (Jan. 1, 2019), http://www.cesi.cn/201801/3539.html.

[174] Cheng Yu, *China Calls for AI Alliance*, CHINA DAILY (Oct. 13, 2017), http://www.chinadaily.com.cn/business/2017-10/13/content_33216440.htm.

This layout shows that regulating AI is a government-wide endeavor and is hardly limited to particular industries. What is less clear, at least at this stage, is how these agencies will interact. Jeff Ding points out that previous ambitious plans involving the development of science and technology led to agency competition and infighting, and that "there is some evidence that similar infighting has already begun over AI policy."[175] Fifteen agencies is a lot—and it is currently unclear how historically fickle local government agencies will fit into this as well. While certain turfs may be easier to define than others based on function (for instance, self-driving car regulations will likely be drafted by the Ministry of Transportation), the fungible nature of AI likely complicates questions of jurisdiction (for instance, if a self-driving car gets hacked leading to an accident, this is also a cybersecurity, public safety, and national security issue, and thus may garner the attention of other agencies). New America's Digichina blog articulates a similar paradigm with cybersecurity regulation. In their words: "[E]ven if it's easy to see the forest of Chinese official efforts to shape the digital world, it can be hard to navigate the trees of implementing regulations, standards, and review regimes."[176] There is ambiguity in the governance of cyberspace or AI due to the inclusion of deliberate, "high-level principles to accommodate competing regulatory actors."[177] The regulation of broad, complex, and politically hyped issues leads to regulatory competition. It could also be a chicken-or-the-egg scenario: do the laws contain ambiguous principles to accommodate pre-existing regulatory competition, or do the ambiguous principles create or exacerbate regulatory competition?

C. EXISTING LAWS AND STANDARDS GOVERNING AI

Given the sheer breadth of what AI has already impacted, there are many existing laws that "govern AI," in the sense that China's legal and administrative institutions already govern every industry and a great deal of corporate and private individual conduct. At this point, it is unclear to what extent the use of AI affects these existing laws. For instance, I would imagine that self-driving cars have to stop at red lights, the same as any other driver. Thus, this discussion does not aim to be exhaustive in terms of addressing all the ways that law already governs

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175 Ding, *supra* note 15, at 14.

176 Paul Triolo et al., *China's Cybersecurity Law One Year On*, NEW AM. DIGICHINA BLOG (Nov. 30, 2017), https://www.newamerica.org/cybersecurity-initiative/digichina/blog/chinas-cybersecurity-law-one-year/.

177 *Id.*

AI in China. This would be particularly challenging as many laws that de facto regulate behavior or industries affected by AI do not explicitly say so. At this stage in China, there is a national AI plan, but not a national AI law. The Thirteenth NPC included AI in their latest Legislation Plan under "Category Three," or "legislative projects… which require further research and demonstration" before legislation can be drafted or further complicated.[178] This suggests that there will not be a national AI law for at least the next couple of NPC sessions. Thus, the focus of this section is on the ways that the technology and terminology of AI is changing Chinese law and the ways in which it might continue to change the law. In March 2019, a spokesperson for the NPC Standing Committee told *Xinhua* that regulations of AI were under consideration.[179]

The majority of governing instruments regulating AI explicitly are standards (not laws). The Legislation Law of the PRC, passed in 2000, articulates the difference and authority of law (法律) and legislation (法规), as compared to regulations and rules (规定 and 规章). It does not include standards (标准).[180] Jamie Horsley describes standards as a kind of non-legislative regulation.[181] According to Samm Sacks at the Center for Strategic and International Studies, standards are not legally binding per se, but are very influential when the government conducts reviews and approvals. Thus, there are strong political incentives to comply with standards. They have more force than technical specifications or voluntary frameworks, and serve more as a kind of regulatory tool for implementing higher-level laws and plans.[182]

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178 Shisan Jie Quanguo Renda Changweihui Lifa Guihua (十三届全国人大常委会立法规划) [The Legislative Plan of the 13th National People's Congress Standing Committee] (promulgated by the Nat'l People's Cong. Stand. Comm., Sept. 7, 2018), http://www.gov.cn/xinwen/2018-09/08/content_5320252.htm.

179 *China to Legislate on Personal Information Protection, AI*, XINHUA (Mar. 4, 2019), http://www.xinhuanet.com/english/2019-03/04/c_137867954.htm.

180 Lifa Fa (中华人民共和国立法法) [Legislation Law] (promulgated by the Nat'l People's Cong., Mar. 15, 2000), https://baike.baidu.com/item/%E4%B8%AD%E5%8D%8E%E4%BA%BA%E6%B0%91%E5%85%B1%E5%92%8C%E5%9B%BD%E7%AB%8B%E6%B3%95%E6%B3%95/84426.

181 Jamie P. Horsley, *China's Central Government Seeks to Rein in Regulatory Documents*, THE REG. REV. (May 7, 2019), https://www.theregreview.org/2019/05/07/horsley-china-central-government-rein-regulatory-documents/.

182 Samm Sacks, *New China Data Privacy Standard Looks More Far-Reaching than GDPR*, CTR. FOR STRATEGIC & INT'L STUD. (Jan. 29, 2018), https://www.csis.org/analysis/new-china-data-privacy-standard-looks-more-far-reaching-gdpr.

The Chinese government has been active in crafting and implementing standards at both the national and international levels. On the one hand, Chinese companies and academics have had a greater presence at AI conferences focused on the technical aspects of the technology, but very little presence at conferences that discuss the ethics or governance of the technology.[183] On the other hand, a book published by Tencent includes language that is very similar to the Asilomar AI Principles (ethical principles of AI articulated at a conference organized by the Future of Life Institute),[184] and China has been especially active and ambitious in shaping AI standards at the International Organization for Standardization. The Chair of the Electrotechnical Commission's Joint Technical Committee is Wael Diab, a senior director at Chinese tech company Huawei. The Committee's first meeting was held in April 2018 in Beijing. Apparently, both the chair position and location of the first meeting were hotly contested, and both were resolved to China's satisfaction.[185] This is a part of a broader trend of China's push for uniform global standards—ones that it can heavily influence.

However, this road goes in both directions. While the CESI white paper's standards also push for filling the "empty spaces" of AI standardization internationally, the standards that it has recommended and already promulgated were heavily influenced by those promoted by the International Organization for Standardization ("ISO") and other international standards.[186] This approach is different from a "multistakeholder" approach which, in addition to governments, also involves companies, civil society organizations, and individuals in the process of norm-setting and standards-making.

The Chinese government has also recently published other documents related to AI ethics that are heavily influenced by international standards. One is the "Beijing AI Principles" released by the Beijing Academy of Artificial Intelligence, which is backed by MOST and the Beijing Municipal Government.[187] The Beijing AI Principles are similar to other such AI ethics principles in their breadth, lack of specificity, and focus on platitudes such as "doing good" and

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183 Ding, *supra* note 15, at 26.

184 Conference Participants, *Asilomar AI Principle*s, FUTURE LIFE INST. (Jan. 6, 2017), https://futureoflife.org/ai-principles/.

185 Ding, *supra* note 15, at 31.

186 CHINESE ELECTRONIC STANDARDIZATION INST., *supra* note 30, at 33, 45.

187 Rengonzhineng Beijing Gongshi (人工智能北京共识) [Beijing AI Principles] (promulgated by the Beijing Academy of Artificial Intelligence, May 28, 2019), https://www.baai.ac.cn/blog/f4d28928ef4.

"being ethical."[188] It focuses on three main umbrella topics: research and development, use, and governance, and offers some general principles for each. It does not, however, describe how government agencies or private companies are supposed to internalize, enforce, or otherwise manifest these principles.[189]

Similarly, MOST's Artificial Intelligence Expert Committee recently published eight principles of "responsible AI governance," including harmony, fairness, inclusivity, privacy, and other values. The principles are lofty and vague and appear to take for granted a certain simplicity when it comes to AI and human values. For instance, principle eight is "agile governance," and encourages "respecting the natural laws of AI development."[190] Not only is it not clear what the "natural laws of AI development" are, but the principle seems to assume that there is merely one set of laws. Another recent governance document was issued by China's Artificial Intelligence Industry Alliance. The "Joint Pledge on Artificial Intelligence Industry Self-Discipline" includes a series of provisions and principles to which AI developers and deployers within China are supposed to adhere, including that AI be "human-oriented" and promote diversity and inclusiveness.[191] There is a great deal of overlap regarding the principles and provisions articulated in these various documents. Like their counterparts in other countries, these ethical principles tend to be highly idealistic and sparse on the details. The Artificial Intelligence Industry Alliance's "Joint Pledge," at least at one point, mentions the goal of "enhancing the measurability" of ethical principles.[192]

The National AI Standardization Group also released an "AI Ethics Risk Analysis Report" (the "Report") in which it discusses AI ethics and governance in greater detail. Unlike other papers, this report actually includes not only substantive information on AI ethics but also offers concrete recommendations on how private sector companies should internalize them. It discusses both short- and long-term problems, including algorithmic transparency, communicability, and bias, data and

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188 *Id.*

189 *Id.*

190 Xinyidai Rengongzhineng Zhili Yuanze – Fazhan Fuzeren de Rengongzhineng (新一代人工智能治理原则—发展负责任的人工智能) [New Generation Artificial Intelligence Governance Principles—Developing Responsible AI] (promulgated by the Ministry of Science and Technology, June 17, 2019), https://mp.weixin.qq.com/s/JWRehPFXJJz_mu80hlO2kQ.

191 *Id.*

192 *Id.*

privacy protections, liability and the attribution of responsibility, IP theft, and other issues.[193]

Perhaps more importantly, the Report discusses the governance of AI beyond saying it will happen. It recommends that companies create internal organizations that can evaluate, respond to, and control problems that arise due to the deployment of AI. Its suggestions include ways companies can encourage various departments and professionals to develop an "AI risk consciousness"[194] or set up central AI ethics risk management committees[195] to oversee smaller groups that can manage issues related to AI deployment at different levels throughout the company.[196] It also recommends the creation of a "communications and consultations channel" for the sharing of common problems and best practices.[197] The report even details the process by which these groups can establish a range of ethical principles, evaluate the current practices, and develop means of further implementing ethical changes.[198]

Overall, the Report urges more caution and thoughtfulness as AI is developed and deployed than do other plans, white papers, or reports. It is also more detailed; it goes beyond simply stating that AI should uphold "human values" in platitudinous language. It even questions the wisdom of always assuming that replacing human decision-making with automated algorithms will improve a system.[199] However, it does refrain from using legal language. The document often describes de facto rights, in that it explains what individuals and companies "should" be able to do and expect in certain circumstances. It does not, however, use the language of rights (权利) or other legal terms. Interestingly, the Beijing AI Principles use the phrase "rights," but do not describe in detail what those are or how they can be enforced.[200]

Also, the Report disregards the inherently political nature of a number of the values it articulates. For instance, it discusses problems of both "algorithmic security" (算法安全) and "abuse of algorithms"

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193 Rengonzhineng Lunli Fengxian Fenxi Baogao (人工智能伦理风险分析报告) [Artificial Intelligence Risk Analysis Report] (promulgated by the Nat'l Artificial Intelligence Standardization Group, Apr. 2019), http://www.cesi.ac.cn/images/editor/20190425/20190425142632634001.pdf.

194 *Id.* at 35 ("风险意识").

195 *Id.* at 36–7.

196 *Id.*

197 *Id.* at 36.

198 *Id.* at 37–38.

199 *Id.* at 1–2.

200 Beijing Gongshi, *supra* note 187.

(算法滥用) in ways that assume a "correct answer."[201] Realistically, questions concerning the "integrity" of algorithms and the appropriateness of their use are more social than mathematical. The report does not discuss this disconnect.

Despite the encouraging content in the Report, it is unclear how influential it will be in terms of shaping government and private sector behavior, particularly on an institutional level. The Report itself takes for granted that a number of the changes it requests require institutional shifts—shifts that are likely to involve political concerns such as the changing of power dynamics, as checks and balances tend to. The status of the report's recommendations is also ambiguous. Are they rules (法规), standards (标准), or simply suggestions without any legal force? Understanding its legal status is a necessary prerequisite for determining how it will affect AI's development and deployment across society.

One example of a key standard that will certainly affect AI is the articulated privacy standard. The Personal Information Security Specification took effect in May of 2018.[202] Privacy as a legal concept and right developed in China starting with its "Reform and Opening-Up Period" in the 1980s.[203] While there still is not a comprehensive law that defines and protects personal privacy, there are other laws that stipulate an obligation of government agencies and private actors to safeguard personal data[204] as well as a tort action for violating the right of privacy.[205]

The new Personal Information Security Specification involves three major categories: personal information, data transfer, and data

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[201] *Id.* at 9–10, 24–26.

[202] Xinxi Anquan Jishu, Geren Xinxi Anquan Guifan (信息安全技术，个人信息安全规范) [Information Technology Security and Personal Information Security Specification] (promulgated by the Standardization Administration, Dec. 12, 2017, effective May 1, 2018), http://www.cac.gov.cn/2018-05/14/c_1122776896.htm.

[203] Sarah W. Denton et al., *There's Nowhere to Hide Artificial Intelligence and Privacy in the Fourth Industrial Revolution*, WILSON CENTER 13 (Mar. 2018), https://www.wilsoncenter.org/sites/default/files/ai_and_privacy.pdf.

[204] *See* Wangluo Anquan Fa (网络安全法) [Cybersecurity Law], arts. 37, 40 (promulgated by the Nat. People's Cong. on Nov. 6, 2016, effective Jun. 1, 2017), https://www.pkulaw.com/en_law/4dce14765f4265f1bdfb.html?keyword=cybersecurity%20law; *see also* E-Commerce Law Dianze Shangwu Fa, (电子商务法) [E-Commerce Law], art. 23 (promulgated by the Nat. People's Cong., Aug. 31, 2018, effective Jan. 1, 2019), https://www.pkulaw.com/en_law/3f020f79c1e5316ebdfb.html?keyword=e%20commerce%20law.

[205] *See* Qinquan Zeren Fa (侵权责任法) [Tort Liability Law], art. 3 (promulgated by the Nat. People's Cong., Dec. 26, 2009, effective July 1, 2010), https://www.pkulaw.com/en_law/e1578469c93b7751bdfb.html?keyword=tort%20law.

management and governance.[206] Each of these forms of regulation will affect AI since, in its most utilized form, AI requires copious amounts of data to be trained properly. Due to the potential breadth of the three categories, it is possibly more far-reaching than Europe's General Data Protection Regulation ("GDPR").[207] According to Samm Sacks, China's privacy specification "extends to any personal data that would cause harm to persons, property, reputation, and mental and physical health if lost or abused."[208] "Abuse" is a particularly ambiguous word here. On the other hand, one of the chief architects of the privacy law, Dr. Hong Yanqing, disagrees with this assessment and has stated that the drafters sought to make the standard more permissive for companies than the GDPR in order to avoid undermining AI development. The Chinese standards allow for "implied or silent consent" of data collection and use, as well as include an exemption that appears to allow for companies to patch their networks and update software for security reasons without having to follow the standard's stringent requirements.[209]

There are at least two interesting dynamics here. One is the apparent have-your-cake-and-eat-it-too characteristic of the privacy standard. It is both more stringent than the GDPR and more permissive for companies. This interesting characteristic is discussed in more detail in the next section of this paper. Another dynamic is the focus on companies, and not necessarily the government's collection or use of personal data. It would appear that everyone has "silently consented" to the collection of their data for the central government's use. This is due to a number of reasons. The National Security Law and Anti-Terrorism Law, both of 2015, allow the government to collect any information for the sake of public welfare and national security. Also, Chinese society has a different "social context" when it comes to privacy, driven in part by different cultural understandings of one's relationship with the state and society, as well as the fact that the CCP already collects a personal dossier for large amounts of its population.[210] Thus, privacy violations are a company problem or a problem between two private entities.

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206 Sacks, *supra* note 182.

207 *General Data Protection Regulation*, EUROPEAN COMMISSION (May 25, 2018), https://gdpr-info.eu/.

208 Sacks, *supra* note 182, citing the Personal Information Security Specification, *supra* note 202.

209 Samm Sacks, *China's Emerging Data Privacy System and GDPR*, CTR. FOR STRATEGIC & INT'L STUD. (Mar. 9, 2018), https://www.csis.org/analysis/chinas-emerging-data-privacy-system-and-gdpr.

210 Denton et al., *supra* note 203.

Privacy law in China is therefore not the protection of personal information per se, but rather a monopoly on the legitimate use of personal information concentrated in the state. As AI law continues to develop, it will likely follow a similar pattern of developing a monopoly on the legitimate use of AI as defined by the state.

This state monopoly over the legitimate use of personal information increases the power of the government, both formally (as mentioned above, the government can require private companies to store and hand over data on individuals) and informally, such as through a vague breadth that encourages overcompliance and self-censorship. For example, James Griffiths describes how "the censorship that the vast majority of Chinese internet users experience is carried out not by the government but by the websites and internet service they visit." Potential overcompliance with vague internet policing rules is not incidental; it is a deliberate feature of China's strategic internet control regime.[211] After the removal of term limits, state authorities began censoring images of Winnie the Pooh, to whom President Xi has been compared.[212] Last year, the British cartoon Peppa Pig was purged from video streaming app Douyin after the character became "subversive."[213] In such cases, it is unclear if the government forced tech companies to remove content or if the companies themselves preemptively did so. Perry Link uses the analogy of an "anaconda in the chandelier": "[N]ormally the great snake doesn't move. It doesn't have to. It feels no need to be clear about its prohibitions. Its constant silent message is 'You yourself decide,' after which, more often than not, everyone in its shadow makes his or her large and small adjustments—all quite 'naturally'." The great snake then eats whoever displeases it.[214]

In addition to putting pressure on private companies, the series of laws also create confusion. China's e-commerce law, for example, requires that companies delete user data, while simultaneously requiring that they retain data to assist with government investigations when requested.[215] Similarly, the cybersecurity law requires companies to

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211 GRIFFITHS, *supra* note 150, at 72.

212 Javier Hernandez, *China's Censors ban Winnie the Pooh and Letter "N" after Xi's Power Grab*, N.Y. TIMES (Feb. 28, 2018), https://www.nytimes.com/2018/02/28/world/asia/china-censorship-xi-jinping.html?module=inline.

213 Amy Qin, *Peppa Pig, Unlikely Rebel Icon, Faces Purge in China*, N.Y. TIMES (May 1, 2018), https://www.nytimes.com/2018/05/01/world/asia/peppa-pig-china-censors.html.

214 Perry Link, *China: The Anaconda in the Chandelier*, CHINAFILE (Apr. 11, 2002), http://www.chinafile.com/library/nyrb-china-archive/china-anaconda-chandelier.

215 *See* E-Commerce Law, *supra* note 204, art. 25.

obtain individual consent before collecting personal information but also allows the government to demand that companies turn over information (including personal information) on users by request and via random inspections of internet service providers.[216] As mentioned above, the National Intelligence Law requires private organizations to assist government organizations, which presumably includes storing data on individuals and providing for the government. Therefore, in order to comply with the e-commerce and cybersecurity laws, tech companies operating in China have to collect data only with user consent, but sometimes must do so even if they do not get user consent, as well as both delete and retain consumer data. This legalistic catch-22 encourages private organizations to be extra cautious of running afoul of the Party's laws, and the seeming paradoxes within the laws are solved by attempting to predict what will make the government happy, including by means of overcompliance.

VI. DISCUSSION: ADVANTAGES AND DISADVANTAGES OF CHINA'S REGULATION OF ARTIFICIAL INTELLIGENCE

China has serious economic and political incentives to increase its control of AI across the world. McKinsey Global Institute produced a report in which it estimated that 51% of work activities in China can be automated—more than any other country. [217] A PricewaterhouseCoopers report similarly estimated that China has the most to gain from AI technologies with a potential 26% boost in GDP. Of course, the State Council's plan itself also highlighted the clear economic, political, military, and social benefits of AI. The standards articulated by CESI also include a statement that "the public must trust AI technologies" in order to realize it.[218] With increased centralization and rhetorical control, trusting AI means trusting the CCP. Law is a powerful tool in pursuing this control. It is also a complex one.

The combination of the sheer breadth of what "AI" can mean, increased centralization, and rhetorical control offer a series of potential advantages and disadvantages. On the one hand, the combination might give the central government an unprecedented level of control and maneuverability. AI has the potential to infiltrate many sectors and

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216 Samm Sacks & Lorand Laskai, *China's Privacy Conundrum*, SLATE (Feb. 7, 2019), https://slate.com/technology/2019/02/china-consumer-data-protection-privacy-surveillance.html.

217 Ding, *supra* note 15, at 32.

218 CHINESE ELECTRONIC STANDARDIZATION INST., *supra* note 30, at 32.

influence people's lives in different ways. Control over AI could lead to greater control over these sectors and people's lives. On the other hand, AI's broad, ambiguous meaning combined with the political expediency and hype surrounding it could exacerbate institutional decay and produce harmful unintended consequences. There are also reasons to question the CCP's faith in AI as a transformative technology from the perspective of solving social problems.

A. ADVANTAGES: STRATEGIC AMBIGUITY

If AI means potentially everything and you control AI, then does that not mean you get to control everything? If all of the AI plans discussed above are realized, China would certainly emerge as a political and economic superpower. Currently, AI is a much-hyped subject that inspires the imaginations of not only tech companies but also individuals and policy makers across the world. Now is a good time to act, and China is certainly very active and has already garnered a great deal of clout. International companies have little choice but to comply with new privacy and other AI-affecting regulations; there are no clear and adequate existing international regimes to offer an alternative.[219] This lack of clarity regarding AI standards and sheer number of potential enforcers of the standards gives the central government a great deal of room to maneuver; it produces a strategic ambiguity in the law's enforcement. This legal 'strategic ambiguity' refers to the central government's capacity to oversee government agency and private sector action with vague laws that both increase the central government's flexibility in terms of punishing wrongdoers and change the definition of the "correct" way to comply as well as create a culture of uncertainty and trepidation on the part of government agencies and private sector companies, leading them to tend towards overcompliance. While lower level officials and individual agencies might commit errors, strategic ambiguity allows the central government to always be correct and consistent, as well as to act as malleably as necessary for whatever ends it finds important at a given time.

Regulatory uncertainty also ensures that foreign businesses have to maintain good personal relationships with the appropriate central government officials—another dynamic that improves central

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[219] Samm Sacks et al., *Beyond Worst-Case Assumptions on China's Cybersecurity Law*, NEW AM. CYBERSECURITY INITIATIVE (Oct. 13 2017), https://www.newamerica.org/cybersecurity-initiative/blog/beyond-worst-case-assumptions-chinas-cybersecurity-law/.

government control. Companies in China, including foreign ones, are required by law to establish party organizations—a rule that has increasingly been enforced. According to an article in *Reuters,* in July 2017, over a dozen top European companies in China met in Beijing to share their concerns about the growing role of the Party in business operations. Some discussed being under "political pressure" to revise the terms of joint ventures to allow the Party final say over important business decisions. China's State Council Information Office explained to *Reuters* that such organizations help companies understand China's policies and guide the corporate culture.[220] In other words, in order to clearly understand how some laws and policies work, foreign companies have to maintain relationships with public officials and consistently ask for clarification regarding the law's effect.

With such a complex technology, it would behoove companies to first ask permission before deploying something new. This also allows the central government to effectively say one thing and do another when it comes to legal compliance requirements. For example, the Chinese government has repeatedly stated that its laws do not require foreign tech companies to transfer technologies as a requirement for doing business within China. A recent survey of European tech companies, however, reveals that forced technology transfers have increased in the last two years.[221] The devil is not only in the details, but in the dynamic created by vague laws that have different requirements depending on the context. This dynamic is manipulated by the central government to great effect.

The Privacy Standard is a good example. It is both more stringent than Europe's GDPR and friendlier to companies. The text leaves "space for interpretation by enforcement authorities whose interests and objectives may not align with the intent of the drafters." The process of gaining exemption from any of the requirements is unclear.[222] The Privacy Standard calls for explicit consent to collect sensitive personal information. Dr. Hong Yanqing, one of the architects of the standards, has explained that implicit consent is sufficient.[223] The

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220 Michael Martina, *Exclusive: In China, the Party's Push for Influence Inside Foreign Firms Stirs Fears*, REUTERS (Aug. 24, 2017), https://www.reuters.com/article/us-china-congress-companies/exclusive-in-china-the-partys-push-for-influence-inside-foreign-firms-stirs-fears-idUSKCN1B40JU.

221 Julie Wernau, *Forced Tech Transfers are on the Rise in China, European Firms Say*, WALL STREET J. (May 20, 2019), https://www.wsj.com/articles/forced-tech-transfers-are-on-the-rise-in-china-european-firms-say-11558344240.

222 Sacks, *supra* note 182.

223 *Id.*

Cybersecurity law, which backs up the standard with the force of law, does not define consent.[224] It is unclear how one can comply with or violate the standard. This allows for multiple layers of strategic ambiguity—enforcement authorities from different agencies within China's government can interpret it as they wish.[225] Also, the multiple layers allow the central government to step in and "correct" agency or company "misbehavior" whenever they deem it appropriate. This ambiguity could mean selective enforcement. It could also mean that the central government will change its understanding of the law to suit its own interests as it sees fit, whether for regulatory or rhetorical capture. This dynamic certainly gives the central government a great deal of power.

Strategic ambiguity extends beyond the privacy standard. An example is China's approach to AI-powered autonomous weapons systems. On the one hand, China was the first permanent member of the UN Security Council to support a ban on the use of lethal autonomous weapons. On the other hand, China continues to develop AI-powered weapons with a very narrow definition of what constitutes "autonomous."[226]

Kai-fu Lee points out that the government will let new technologies grow and give them "the benefit of the doubt" rather than "stifle [them] with policy or endless debates."[227] Of course, the central government gets to decide what constitutes "growth." Selective enforcement of the laws via vague language and contradictory reports from different agencies give the government a great deal of flexibility when it comes to which companies are allowed to grow and which are stifled with (or without) "policy or endless debates," let alone the enforcement of laws and standards. Already, MOST has identified certain companies as China's AI national champions. Jeff Ding argues that China "seeks to benefit from the open flow of talent and technology while preventing international companies from gaining a foothold in its AI industry."[228] The current status of AI governance produces a great deal of ambiguity, an ambiguity that can be strategically manipulated

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224 *Id.*

225 *Id.*

226 Elsa Kania, *China's Strategic Ambiguity and Shifting Approach to Lethal Autonomous Weapons Systems*, LAWFARE (Apr. 17, 2018), https://www.lawfareblog.com/chinas-strategic-ambiguity-and-shifting-approach-lethal-autonomous-weapons-systems.

227 Lee & Triolo, *supra* note 8, at 9.

228 Ding, *supra* note 15, at 21.

by the central government to accomplish its own goals, including dampening competition with its appointed national champions.

In recent years, AI-powered technologies have rapidly spread throughout Chinese society. This trend is likely to continue as machine learning (a key discipline of AI) can increasingly be integrated into products, services, and situations in which it was previously considered infeasible or unpractical to do so. Thus, it will likely become easier to comprehensively monitor the general public and enforce laws and regulations that govern AI (as well as how it is used—effectively regulating real human behavior). Strategic ambiguity exists in these spaces as well. Currently, China's social credit project has led to disconnected "data islands" across different bureaucratic entities and a lack of uniform data-formatting standards.[229] Centralized control of these bureaucracies suggests that the government can experiment and enforce the law in different ways as it sees fit, as well as let different entities experiment with their own interpretations and enforcement mechanisms with the power to *ex post* determine the "correct" way to implement social credit. Currently, different commercial credit institutions will issue disparate credit ratings for the same person due to differing data sets, collection methods, and algorithms.[230] Different jurisdictions will also utilize court blacklists of credit and judgement debtors to enact different penalties.[231] While this may be frustrating for individuals, and a violation of due process in most jurisdictions, it does provide a central authority overseeing the different institutions, with the power to decide which evaluation method is appropriate for different individuals and companies in different circumstances. It also creates a general environment of awe of the government and its omnipresent powers.

Another key advantage derived from the ambiguity surrounding what AI is a border permeability that allows the central government to enter spaces it would otherwise find difficult to access. One key example is the internet, a technology designed to be inherently cross-border but governed by laws that are limited by national boundaries.[232] Similar to AI, the internet has been described by Chinese scholars and government officials as a frontier that China must claim; a chaotic space

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229 Ohlberg et al., *supra* note 92, at 7.

230 *Id.*

231 Rogier Creemers, *China's Social Credit System: An Evolving Practice of Control*, SSRN (May 9, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3175792.

232 Laura DeNardis, *One Internet: An Evidentiary Basis for Policy Making on Internet Universality and Fragmentation*, GLOBAL COMMISSION ON INTERNET GOVERNANCE, 5 (July 2016).

that must be subjected to "order" (秩序).[233] "Order" here refers to an imperative, a notion that the space of the Internet is a potentially dangerous chaos that must be transformed into a more appropriate tool for the state. Gao Wanglai explicitly describes a "loss of order within cyberspace in the information age."[234] The characters used clearly indicates a loss of an order (失序) that apparently was once there, as opposed to a mere lack of order.

The feeling is that if this "order" is not China's, then China will be at the mercy of others. The scholars refer to "de facto dominance" in multiple layers of internet governance such as submarine cable markets and hardware and software providers. Gao uses the paradigm of "center-periphery" (中心–外围) to describe Internet governance. Those at the center hold the power.[235] The first character in the word for center "中心" is also the first character in the word for China (中国). It means middle or center, hence "middle kingdom," and harkens to a political perspective in which all power must rightfully be at the center, with everything else revolving around it.[236] The Internet too must have a "center" in order to appropriately be "ordered." Another scholar, Lu Chuanying, argues that the strategic goal of the U.S. is to take over spaces that do not clearly belong to a nationality.[237] Regardless of whether this is true or false, the mere existence of this mentality is significant. It implies that there can be no space in which humans interact that is not a state space and that the possibility of non-state spaces is potentially dangerous to the state. It means that the internet, like AI, is a contest.

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233 Séverine Arsène, *Global Academic Governance in Chinese Academic Literature*, CHINA PERSPECTIVES, REVUES.ORG, (June 1, 2016), https://journals.openedition.org/chinaperspectives/pdf/6973, citing Gao Wanglai, Wangluo Zhili de Zhidu Kunjing yu Zhongguo de Zhanlüe Xuanze (网络治理的制度困境与中国的战略选择) [*The Institutional Dilemma of Internet Governance and China's Strategic Choices*], 4 Guoji Guanxi Yanjiu (国际关系研究) [INT'L REL. STUD.] 51 (2014).

234 *Id.*

235 *Id.*, citing Shen Yi (沈逸), Hou Sinuodeng Shidai de Quanqiu Wangluo Kongjian Zhili (后斯诺登时代的全球网络空间治理) [*Global Internet Governance in the Post-Snowden Era*], Shijie Zhengzhi yu Jingji (世界政治与经济) [GLOBAL POL. & ECON.] 146 (May 14, 2014).

236 *Id.*

237 *Id.*, citing Lu Chuanying (鲁传颖), Shi Xi Dangqian Wangluo Kongjian Quanqiu Zhili Kunjing (试析当前网络空间全球治理困境) [*Analysis of the Dilemmas of Current Cyberspace Global Governance*], 11 Xiandai Guoji Guanxi (现代国际关系) [MOD. INT'L REL.] 48, 54 (2013).

This articulation of the internet's "space" has motivated China to arguably move beyond its own borders in regulating the internet, both via international organizations such as the International Telecommunications Union and via "sharp power."[238] China has used its online clout to silence criticism and monitor and control ethnic Chinese living outside of the country.[239] There are also instances of Chinese language websites outside of China being incapacitated.[240] Strategic ambiguity applies to conceptions of security as well, as the Chinese government does not distinguish between threats to physical security and threats to ideological security.[241] In other words, DDoS attacks on a website[242] and politically incorrect posts on a social media feed are both "security risks."

Like the internet, AI is a set of technologies that potentially transcend national borders, as well as the boundary between technical and ideological security. This is especially true because AI does not have a clear definition; it could refer to many kinds of technologies, and many different uses of those technologies, all over the world. Many AI-powered technologies also work over the internet, via applications and the cloud. AI regulation is also currently unclear across the world. China is enthusiastically working to bring its own "order" to the space of AI as well.

According to Kai-fu Lee, another advantage that China has is its large work force filled with "mid-tier" AI experts.[243] While top level AI researchers are necessary for developing the next stage of cutting edge AI, Lee argues that we are entering the "implementation age" in which being able to deploy existing technologies across different industries and spaces is more important than developing the next big

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238 Christopher Walker & Jessica Ludwig, *The Meaning of Sharp Power How Authoritarian States Project Influence*, FOREIGN AFF. (Nov. 16, 2017), https://www.foreignaffairs.com/articles/china/2017-11-16/meaning-sharp-power. This term refers to something in between a nation's hard (military) power and soft (cultural and economic) influence.

239 Economist Reporters, *How China's "Sharp Power" is Muting Criticism Abroad*, THE ECON. (Dec. 14, 2017), https://www.economist.com/news/briefing/21732545-and-stealthily-trying-shape-public-opinion-its-favour-how-chinas-sharp-power-muting.

240 LAURA DENARDIS, THE GLOBAL WAR FOR INTERNET GOVERNANCE 220 (2014).

241 GRIFFITHS, *supra* note 150, at 1–15.

242 "DDOS," or distributed denial of service, is a kind of cyber-attack that involves overwhelming a website's servers with traffic so that surfers on the web cannot access that particular website.

243 LEE, *supra* note 75, at 51–81.

technology.[244] If this is true, China's centralized command and control governance structure might facilitate this process given its presumed capacity to order, as opposed to merely incentivize, government entities and private sector companies to deploy AI as fast as possible. While such a dynamic would not automatically make the regulation of AI deployments any clearer or easier, it certainly would give the Chinese government more power in the space to make such decisions.

VII. POTENTIAL DISADVANTAGES OF CHINA'S REGULATION OF ARTIFICIAL INTELLIGENCE

In the U.S., there has been broad discussion of growing competition with China in terms of AI development and regulation, as well as concerns that China's emerging tech governance regime will disadvantage outside firms in favor of its own national champions.[245] What about the possibility that its governance mechanisms simply will not work? The AI Development Plan is not China's first ambitious government-wide, technology-focused endeavor. Others have been less successful, or at least have had few easily articulable successes, including the "big data" plan of 2013 and the "internet of things" plan of 2008, which, according to Paul Triolo and Jimmy Goodrich, "peter[ed] out into a regulatory abyss."[246] Plans, however ambitious, do not always lead to meaningful commercial or institutional outcomes. The Chinese government might perceive AI as the means to gain unprecedented control over China's economy and people, as well as unprecedented global influence and power. However, the plans might have unintended consequences as well. One could argue that some of China's current problems, including excess capacity, environmental destruction, and a rapidly aging population are the results of previously executed grand plans.[247] Strategic ambiguity may prove to be a double-edged sword as it devolves from a "strategic" ambiguity into a kind of chaotic ambiguity. The same dynamics that give the central government a great amount of power and flexibility could create confusion and undermine institutions through which the government executes power.

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244 *Id.* at 12.
245 Ding, *supra* note 15, at 4, 18.
246 Triolo & Goodrich, *supra* note 159.
247 Matthew C. Klein, *No, America Would Not Benefit from Authoritarian Central Planning*, FIN. TIMES (Apr. 2, 2018), https://ftalphaville.ft.com/2018/03/30/1522437793000/No--America-would-not-benefit-from-authoritarian-central-planning/.

Viewing the plans, the massive amounts of money being poured into China's AI sector, and tech companies' and the government's general enthusiasm for AI certainly encourage optimism. However, when viewed from a different perspective, China's future success with AI is less clear. Its regulation of AI should not be examined in isolation, but rather within the greater context of China's current regulatory and legal institutions and the political realities in which they exist, including a trend towards greater centralization, ideological conformity, and control. Similarly, the ways in which AI is being developed and deployed across the world should also inform perspectives of China's regulation of the technology. Are existing regulations of AI, including the unclear Privacy Standard and the various deployments of the social credit system realizations of a new level of power, natural extensions of Weberian bureaucracy, or something else entirely? One potential concern is sacrificing institutional process for the sake of immediate or politically appealing results. Such tactics would contribute to long term institutional decay and breed further regulatory chaos and confusion, particularly when it comes to government attempts at regulating the various ways that AI is deployed and utilized across different industries.

A. HOW DOES AI REGULATION FIT INTO CHINA'S BROADER LEGAL AND REGULATORY STRUCTURES?

In his book, *End of an Era: How China's Authoritarian Revival is Undermining Its Rise*, Carl Minzner argues that "the mere desire to centralize power is not the same as institution-building."[248] The same could be said about "governing" AI. Political reforms over the past couple decades have been a key aspect of China's economic growth.[249] An important piece of China's rise has been institutional development alongside economic development; such institutional development has built up a professional bureaucracy that can manage a complex modern economy and tackle complex regulatory challenges.[250] Fareed Zakaria writes that Deng Xiaoping institutionalized China's political system but that President Xi might be undoing institutional reforms.[251] Yuen Ang,

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248 CARL MINZNER, END OF AN ERA: HOW CHINA'S AUTHORITARIAN REVIVAL IS UNDERMINING ITS RISE 105 (2018).

249 *Id.*

250 Tom Hancock et al., *China Revamps Bureaucracies as Xi Tightens Grip*, FIN. TIMES (Mar. 13, 2018), https://www.ft.com/content/3c0d4596-2666-11e8-b27e-cc62a39d57a0.

251 Fareed Zakaria, *Is Anyone Paying Attention to China?*, WASH. POST (Mar. 1, 2018), https://www.washingtonpost.com/opinions/is-anyone-paying-attention-to-china/2018

of the University of Michigan, argues that while bureaucratic reforms have bought time and some maneuver space for the CCP, they "cannot substitute for political reforms forever."[252] Increased prosperity puts greater pressure on China's regulatory regime and broader reforms are needed. Given the complexity and potential breadth of AI, this dynamic is likely to be particularly salient as China seeks to regulate the technology in a way that encourages development and innovation while avoiding potential missteps. Ang also argues that President Xi's continued efforts at centralization and "imposing strict discipline" will hinder the bureaucracy's capacity to respond to complex situations innovatively and flexibly. [253] This context is important because "regulation of AI" cannot be viewed in isolation. Rather, it must be examined in institutional context. When it comes to China, this means that one cannot thoroughly explore the subject of AI law and policy without analyzing China's legal institutions and political ecosystem and how "AI" fits within them.

Remco Zwetsloot and Allan Dafoe argue that analysts and policy makers should address questions of AI regulation with a "structural perspective," meaning one that takes into account "not only how a technological system may be misused or behave in unintended ways, but also how technology shapes the broader environment in ways that could be disruptive or harmful."[254] My concern vis-à-vis China is that its current approach to "regulating AI" will have broader institutional consequences. Due to the political impetus to "succeed" with AI, as well as a lack of a clear definition of what AI is, grand plans will encourage the reversal of many of China's recent institutional advancements and contribute to institutional decay. The most currently noticeable evidence of this trend is, ironically, the lack of the kind of institution building that is necessary to regulate AI in different industries.[255]

/03/01/b8d44302-1d94-11e8-9de1-147dd2df3829_story.html?utm_term=.2c8e3dfd95a9.

252 Yuen Ang, *Autocracy with Chinese Characteristics*, FOREIGN AFF. (Apr. 16 2018), https://www.foreignaffairs.com/articles/asia/2018-04-16/autocracy-chinese-characteristics.

253 *Id.*

254 Remco Zwetsloot & Allan Dafoe, *Thinking about Accidents from AI: Accidents, Misuse, and Structure*, LAWFARE (Feb. 11, 2019), *t*https://www.lawfareblog.com/thinking-about-risks-ai-accidents-misuse-and-structure.

255 In multiple jurisdictions across the world, there are examples of legislation, regulations, and court decisions that are beginning to effectively regulate the use of AI in different industries. Despite the growth of China's bureaucracies and court system

'Institutional decay' refers to the process by which growing complexity, ambiguity, and transaction costs inhibit institutions' capacity to rapidly, clearly, and effectively gather and share information and delineate tasks. Such decay makes agency work more difficult for government officials and more opaque for the general public. While no institution can function with zero transaction costs and perfect fluidity and transparency, signs of institutional decay include increased confusion due to unclear and conflicting mandates decreased predictability in regulatory systems, and a greater emphasis on political appeasement than regulatory efficiency—a belief that it is more important that something pleases one's superiors than whether it works. Attempts to regulate AI exacerbate this trend in China due to a lack of reliability of information, growing political pressure that encourages agency stagnation and recklessness, and the institutional confusion brought on by the complexity and hype surrounding the technology.

1. Reliability of Information

"Governing AI" offers an imprecise paradigm right off the bat. What is being governed and regulated? A lack of precision and clarity regarding what AI is could weaken agencies' capacity to communicate as they engage in the governance of the technology. To be clear, the reliability of official information is a perennial problem in China, regardless of the complexity of agency action. According to *Foreign Policy*, Chinese official data is "repeatedly smoothed for both propaganda purposes and individual career ambitions."[256] Information "smoothing" is especially tempting when the subject is politically sensitive. For instance, in the wake of the trade war with the U.S., Beijing's domestic think tanks have apparently been filtering information that they send to the central leadership to make it appear more politically appealing.[257]

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over the past couple of decades, there do not appear to be similar organic responses to the use of AI in different industries.

256 James Palmer, *Nobody Knows Anything About China*, FOREIGN POL'Y (Mar. 21, 2018), https://foreignpolicy.com/2018/03/21/nobody-knows-anything-about-china/.

257 Jane Cai, *Chinese Experts 'Filtered' Trade War Advice to Beijing Policymakers*, SOUTH CHINA MORNING POST (Oct. 18, 2018), https://www.scmp.com/news/china/diplomacy/article/2168866/beijing-crippled-trade-war-filtered-input-domestic-think-tanks?utm_source=HRIC+Updates&utm_campaign=09eebb9b62-EMAIL_CAMPAIGN_2018_10_17_10_17_COPY_01&utm_medium=email&utm_term=0_b537d30fde-09eebb9b62-259225973#comments.

This dynamic is not limited to government organizations. Private companies have also recently faced increased pressure (often from local governments) to "fabricate statistics" and otherwise misrepresent information.[258] The general public in China has also increasingly lost faith in both traditional and social media as a source of reliable information.[259] According to a *New York Times* reporter, it is not uncommon for one part of the government to not share data with another due to mistrust. There are even instances of a government agency not trusting itself to handle data.[260]

In a large, diverse, and dynamic society such as China's, it might be tempting to view AI, and the potential it represents, as a possible solution to information problems. However, I would argue that it is more likely that the opposite will be true—AI regulation requires *more* transaction costs and information sharing about a complex and poorly defined subject.

Kai-fu Lee argues that centralized control will help China develop AI; the government offers preferential tax policies and the "streamlining of government permits" to start businesses with the AI brand.[261] He also states that the central government's setting a clear goal allows lower-level officials to "demonstrate their competence—ambitious officials everywhere throw themselves into advancing that goal and proving themselves capable,"[262] leading to "all corners of society simultaneously spring[ing] into action."[263]

Aside from ignoring the role that politics plays in choosing the winners of China's market competitions, Lee does not specify any more than the Chinese government what exactly Chinese society is supposed to be building. What does it mean to succeed with AI? The dynamic described by Lee has worked with large infrastructure projects. However, while high-speed rail projects may be logistically

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258 Ziyi Tang & Gang Wu, *Five Regions Caught Telling Companies to Cook their Books*, CAIXIN (Sept. 18, 2018), https://www.caixinglobal.com/2018-09-18/five-regions-caught-telling-companies-to-cook-their-books-101327653.html.

259 Maria Repnikova, *China's Lessons for Fighting Fake News*, FOREIGN POL'Y (Sept. 6, 2018), https://foreignpolicy.com/2018/09/06/chinas-lessons-for-fighting-fake-news/.

260 Paul Mozur, *Limiting Your Digital Footprint in a Surveillance State*, N. Y. TIMES (Feb. 27, 2019), https://www.nytimes.com/2019/02/27/technology/personaltech/digital-footprint-surveillance.html?utm_source=HRIC+Updates&utm_campaign=49d81ea1f2-EMAIL_CAMPAIGN_2018_12_04_11_54_COPY_01&utm_medium=email&utm_term=0_b537d30fde-49d81ea1f2-259225973.

261 LEE, *supra* note 75, at 63.

262 *Id.*, at 63–4.

263 *Id.*, at 66.

complicated, each project has a clear end point (the rail is built and is functional). "Developing AI" is much more ambiguous and could lead in many different directions; government officials and entrepreneurs might be unsure as to the politically correct direction in which they should be heading. It is possible that government officials and regulators will be further encouraged to forge, exaggerate, or otherwise misrepresent data concerning AI, given the ambitious goals laid out in the various AI plans as well as the clear political importance placed on AI development. Pretending omnipotence in the face of AI might contribute to a lack of faith in institutions, both from the general public as well as from the bureaucrats working within.

2. Political Pressure

President Xi's centralization of power has already catalyzed some unintended consequences that could be exacerbated as the CCP continues its push to control the development and governance of AI. Recently, the central leadership has created a massive anti-corruption body called the National Supervision Commission (NSC). This follows several years of an anticorruption campaign that investigated 2.7 million officials, punished more than 1.5 million, and tried 58,000 with criminal offenses.[264] The NSC was created in part to "rid the country's vast bureaucracy of its inertia"—many government officials have responded to growing centralization and ideological control by being passive and avoiding attention.[265] In other words, one response to the central leadership's strengthened control has been agency paralysis. This marks a contrast from the environment of previous Chinese leaders. Since the 1980s, the central leadership has generally allowed different small areas of the country to experiment with creative reforms before they are carried out nationwide.[266] Under Xi, however, local government officials appear less willing to experiment for fear of doing something

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264 Jamie Horsley, *What's So Controversial About China's New Anticorruption Body?*, THE DIPLOMAT (May 30, 2018), https://thediplomat.com/2018/05/whats-so-controversial-about-chinas-new-anti-corruption-body/.

265 Nectar Gan, *China Cracks Down on Bureaucracy 'Paralyzed by Fear'*, SOUTH CHINA MORNING POST (Aug. 31, 2018), https://www.scmp.com/news/china/poliitics/article/2162092/china-doubles-down-chinese-bureaucracy-paralysed-fear.

266 This "experimentation" is similar to how countries with federal systems include localities with different legal approaches to different problems. This is in contrast with the "strategic ambiguity" described above of the same legal language being applied differently in different places.

wrong.[267] Interviews conducted by *Bloomberg* confirm this trend. Chinese officials told reporters that there is growing dissatisfaction across the regional and central government ministries. They also reported that "political performance had become more important for civil servants than ability."[268] All those interviewed recently quit or plan to do so soon. Minxin Pei has criticized the targeting of former China Securities Regulatory Commission head Liu Shiyu in an anticorruption campaign, stating that "[f]or some reason [market regulators] are held personally responsible for the performance of the stock market."[269] What happens if China's grand AI plans do not succeed as intended? Who will be held politically responsible?

Highly political plans, such as the AI Development Plan and its successive local iterations, have the potential to exacerbate this political pressure. President Xi has incorporated AI into his legacy-defining plan to transform China into a "science and technology superpower" and articulated China's AI ambitions in conjunction with other broad political cornerstones, such as the Belt and Road Initiative.[270] As a result, failing to develop AI, or developing it the wrong way, could have drastic consequences for government officials. This is true of private companies as well. Not only has the presence of the Party grown increasingly strong in recent years, but the government is also expecting private companies to effectively censor themselves and intuit the most politically correct ways to implement central government policy.[271]

This dynamic puts government officials and private sector companies in a sort of catch-22. On the one hand, the anticorruption campaign has demonstrated the harsh and broad consequences of "incorrect" action. On the other hand, an unspecified level of inaction has now been articulated as a kind of corruption. While action and

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267 Economist Reporters, *Local Experiments with Reform are Becoming Rarer Under Xi Jinping*, THE ECON. (Aug. 18, 2018), https://www.economist.com/china/2018/08/18/local-experiments-with-reform-are-becoming-rarer-under-xi-jinping.

268 Bloomberg Reporters, *Disillusioned Bureaucrats are Fleeing China's Ministries*, BLOOMBERG (Mar. 11, 2019), https://www.bloomberg.com/news/articles/2019-03-11/disillusioned-bureacrats-are-fleeing-china-s-ministries.

269 Don Weinland, *China Corruption Probe's Latest Scalp Raises* Alarm, FIN. TIMES (May 22, 2019), https://www.ft.com/content/837dbab0-7baa-11e9-81d2-f785092ab560 (quoting Minxin Pei).

270 Charlotte Gao, *China Vows to Become and Artificial Intelligence World Leader*, THE DIPLOMAT (July 21, 2017), https://thediplomat.com/2017/07/china-vows-to-become-an-artificial-intelligence-world-leader/.

271 Jiayang Fan, *How E-Commerce is Transforming Rural China*, THE NEW YORKER (July 23, 2018), https://www.newyorker.com/magazine/2018/07/23/how-e-commerce-is-transforming-rural-china.

inaction have always presented risks for government bureaucracies, they now face a novel level of *political* risk and unprecedentedly harsh *political* consequences as a result.

The ambiguity surrounding AI and the lack of standards regarding how companies and governments are supposed to "succeed" with AI catalyzes this dynamic. How will companies and agencies act in this environment? Some may continue in a professional manner, hoping to not get targeted because they are protected by 'national champion' status or, on the opposite end, because they are not visible enough to become targets. Others, however, may resort to placing greater priority on the appearance of political correctness and success, potentially at the expense of real technological advancements. For example, in his book, Kai-fu Lee is concerned that "China's tech elite have said very little about the possible negative impact of AI on jobs" because they might "genuinely believe there is nothing to fear in the jobs impact of AI advances."[272] He overlooks the possibility that focusing on the potential negative impacts of AI could entail a high degree of personal and professional risk for whomever does so. This reluctance increasing appears to be a feature, not an oddity, of China's techno-social system. Given the political impetus behind China's AI plan and the risk that powerful players in China face when questioning official narratives, China's tech elite have strong incentives to be as "optimistic" as possible. Raising concerns about the risks of AI could be politically dangerous.

3. Institutional Confusion

Aside from information and political constraints, agencies may also face growing confusion. 'Institutional confusion' refers to the agencies' failures to understand their own mandates and differentiate their mandate with those of other agencies. While MOST has clearly articulated that 15 agencies are to regulate AI, there remains no clear delineation of AI responsibilities. This could exacerbate competition amongst the agencies. It could also lead to greater institutional decay as pressured bureaucrats chase unclear and ambitious political goals. AI, with its lack of a clear definition or clear parameters, is particularly susceptible to overlapping meanings and claims of jurisdiction. AI is also a politically important topic in China. As different agencies "compete" over claims to AI, what is to stop them from disregarding institutional procedures and barriers in order to "win" at AI or "claim"

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272 LEE, *supra* note 75, at 202.

the appropriate regulatory ground? It is possible that politically important appearances will overtake substance in the bureaucratic contest over AI.

The AI Development Plan and its progeny do not help in this regard. Instead of offering clear mandates, the AI Development Plan is more like a "Santa's list of desiderata and objectives."[273] Despite the lack of clarity, the resources invested in implementing such a plan will likely have concrete institutional consequences. There is a difference between various agencies regulating AI per their institutional mandates and these same agencies being "ordered" to generally govern "AI." The former often involves agencies relying on their specialized expertise to organically respond to a new technology's impacts on society. The Ministry of Transportation might institute safety and liability rules for self-driving cars. The Ministry of Education might articulate privacy rules for automated "smart" tutors and other educational tools that collect information from students. Such processes can be frustratingly slow, but they are not necessarily institutionally destructive. The latter involves a heavy political impetus to seize the "space" a new technology creates in society and to please senior political leadership. It emphasizes authority over substance. AI is such a potentially broad-reaching technology that ministry bureaucrats and leaders might feel compelled to extend beyond their institutional mandate and overregulate in cases that could expand their political visibility or underregulate in instances that might appear to place politically incorrect limits on AI.[274]

This is particularly true when the differences between agency jurisdictions over AI is blurred. For example, both the MOST and the Ministry of Industry and Information Technology regulate important technologies. "AI" is now an enticing political opportunity for an ambitious regulator. Will the two agencies cooperate to better understand AI, its impact on society, and therefore the most appropriate ways to regulate it, or compete for rhetorical control over the technology in order to be able to take credit for its perceived successes? While there are 15 different agencies tasked with regulating AI, there is still only one central government, one Party, one President Xi, and thus potentially only one "right way" to develop and deploy AI.

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[273] Graham Webster et al., *China's Plan to 'Lead' in AI: Purpose, Prospects, and Problems*, NEW AM. (Aug. 1, 2018), https://www.newamerica.org/cybersecurity-initiative/blog/chinas-plan-lead-ai-purpose-prospects-and-problems/.

[274] For example, there might be a temptation to overlook certain safety concerns with the use of algorithms in different contexts if regulation risks slowing their deployment or development. This could be disastrous in the case of products like autonomous vehicles which could cause serious physical harm.

Unfortunately, other institutions, such as courts and private companies, are unlikely to have the capability to significantly alleviate this dynamic due to the same lack of clarity and political pressure, as well as unique institutional barriers of their own. For one, it is unclear how courts could clarify law given their subservience to the political mandates of the Party—judges face the same risks of politically incorrect decisions as bureaucrats do. Private sector tech companies increasingly face similar pressure as well. The *Financial Times* reported that one of MOST's AI champions, Tencent, is facing serious internal challenges due to infighting and information and resource silos that former employees have described as a "horse race." As a result of this and increased government regulation, Tencent's shares have fallen significantly since the company's heyday valuation of half a trillion.[275]

B. DISCUSSION: CHAOTIC AMBIGUITY AND INSTITUTIONAL DECAY

However defined, AI is clearly a set of complex and potentially transformative technologies. It is also far from clear, however, what AI's "transformations" of society will look like. The CCP appears to take for granted that AI will equip them with powerful tools of governance that will help solve China's millennia-long problem of the disconnect between a central government claiming absolute authority and the sheer logistical, political, and other challenges of implementing the central government's policies across such a large and diverse country. Ironically, it is also possible that the advent of AI and similar technologies will increase the complexity of society and make an authoritarian government's job more difficult. As a general trend, the CCP has tended to prioritize rapid resolution of conflicts over adherence to legal procedures, a tactic that can weaken legal institutions.[276] This dynamic might be exacerbated by the addition of AI. By pushing for AI governance so aggressively, the Chinese leadership may be inadvertently and systematically undermining their own institutional mechanisms of political, economic, and social control. A similar example is internet control. Despite the CCP's formidable "Great Firewall" and aura of absolute control, China's internet remains a "battlefield, upon which aggrieved socioeconomic groups renegotiate

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275 Louise Lucas, *Struggling Tencent seeks to Heal Internal Rifts*, FIN. TIMES (Oct. 17, 2018), https://www.ft.com/content/3e363f84-d0f8-11e8-a9f2-7574db66bcd5.

276 Benjamin Liebman, *Legal Reform: China's Law-Stability Paradox* (Columbia Law and Economics, Working Paper No. 97, 2014), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2491899.

social norms and policy decisions."[277] Increasingly sophisticated means of censorship has led in turn to increasingly sophisticated activists.

Chinese courts offer another example. While it is difficult to assess the effectiveness of institutions at any single point in time, particularly in a nation as large and complex as China, there are signs of general institutional decay. While the use of courts to solve disputes has dramatically increased since the 1980s,[278] the number of street protests has also gone up, from 10,000 in 1994 to 120,000 in 2008.[279] The Ministry of Public Security stopped releasing official statistics related to protests after 2006, but estimates by scholars and activists in China suggest that the number has continued to grow.[280] In some instances, protests have been used in conjunction with litigation to encourage policy change. According to Ben Liebman, for example, use of the legal system has become increasingly theatrical. Many have resorted to "extra-legal" weapons such as demonstrations, sit-ins, and petitions while pursuing litigation.[281] However, it is also possible that street protests have grown because potential plaintiffs believe that courts cannot adequately respond to their grievances. This general picture does not offer much assurance that broad discussions of AI are much more than performances. Liebman points out that while courts in China are often innovative, such "innovations" generally serve "to insulate courts and judges from criticism, not increase court authority."[282] Thus, however innovative courts might become, they likely will not have the motivation or capacity to expand their role in regulating how AI affects society. The topic of "AI" might already be too sensitive.

In some ways, "success" in China's AI space has already been defined as a political feedback loop. In a report on China's AI

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277 Cheng Li & Diana Liang, *Protest Meets Party Control: Renegotiating Social Norms Online in Present Day China*, THE JAMESTOWN FOUND. CHINA BRIEF (Sept. 18, 2018), https://jamestown.org/program/protest-meets-party-control-renegotiating-social-norms-online-in-present-day-china/?mc_cid=e24a9b5ebd&mc_eid=a762503c8c&utm_source=HRIC+Updates&utm_campaign=674e7b7ce8-EMAIL_CAMPAIGN_2018_09_20_05_41&utm_medium=email&utm_term=0_b537d30fde-674e7b7ce8-259225973.

278 Jamie Horsley, *Will Engaging China Promote Good Governance?*, BROOKINGS INST. 3 (2017), https://www.brookings.edu/wp-content/uploads/2017/01/fp_201701_will_engaging_china_promote_good_governance2.pdf.

279 MINZNER, *supra* note 248, at 87.

280 Economist Reporters, *Why Protests are so Common in China*, THE ECON. (Oct. 4, 2019), https://www.economist.com/china/2018/10/04/why-protests-are-so-common-in-china.

281 MINZNER, *supra* note 248, at 93.

282 Liebman, *supra* note 276, at 100.

development released this year by Tsinghua University, "policy success" is defined almost entirely by how much government officials are talking about AI. The report points out that China has released more AI strategy and policy documents than any other country or the EU. It mentions at least 845 government AI policy documents and states that they are "intertwined and cite each other."[283] However, it lacks a substantive assessment of any of these documents' content as well as any discussion of how different policies encourage or shape particular kinds of action. Instead, like the many documents it describes that simply parrot existing language, it takes for granted that policy rhetoric will lead to real policy change.

In this environment, agencies and companies can engage in any kind of behavior (or none) and continue to celebrate the development of AI governance in China. For example, the provincial and city plans that listed target figures for the size of core and AI-related industries are very ambitious (each makes up a significant portion of the State Council Plan's national figure, which by itself is ambitious).[284] Jeff Ding points out that there's "probably no [political] cost to not making this benchmark, but if you hit it, maybe the Party Secretary for Guangdong Province or the mayor of Guangzhou gets a promotion."[285] However, such ambitious figures may have an *institutional cost* to declare depending on the means pursued by provincial and local governments to become national examples of AI leadership. For instance, over the past couple of decades, in their pursuit of infrastructure and other land project-based economic growth, local governments overlooked, or flat out disregarded, economic laws and concerns, leading to significant public health problems, mass migration, economic loss, social unrest, and other problems.[286] An anonymous Chinese scholar, writing in *Foreign Affairs*, explains that grand programs of reform, such as the anti-corruption campaign, involve "loud thunder, small raindrops," or a great deal of rhetoric without any real change. According to the scholar, "such campaigns tend to produce more concentration of power rather than less, strengthening the legitimacy of particular charismatic leaders

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[283] *China AI Development Report 2018*, *supra* note 158, at 77.

[284] Forward Looking Industries Research Center, *supra* note 156.

[285] Jeff Ding, *2018 is the Year of AI Policy at the Local Level*, CHINAI NEWSL. 4 (Apr. 2, 2018), https://chinai.substack.com/p/chinai-newsletter-4-2018-is-the-year-of-ai-policy-at-the-local-level.

[286] There is a great deal of scholarship on this complex issue. *See, e.g.*, ELIZABETH ECONOMY, THE RIVER RUNS BLACK: THE ENVIRONMENT CHALLENGE TO CHINA'S FUTURE (2018).

at the expense of bureaucracies.[287] The AI Development Plan is following a similar trajectory—rhetorical flourish, centralization of power, and little in terms of means or substance, all at the expense of institution building.

Furthermore, there are examples of the Chinese government utilizing AI to make prosecutorial and judicial decisions that are normally made by people. The Supreme People's Court is considering adopting a practice called the "Compulsory Similar Cases Search and Reporting Mechanism" that utilizes AI to check judges' decision-making against similar cases and warn of "abnormal judgements."[288] Whether this, as well as other instances of using AI to enforce a "similar judgments for similar cases" rule defined by a digital algorithm, addresses issues of judicial professionalism and corruption or not, it might affect judges' capacity to think critically and do their jobs. Such systems, if widely used, would likely affect the institutional capacity of courts, as judges work more towards conforming with an algorithm's outputs than applying the law to individual cases.

Another example of using AI to make decisions that would merit legal evaluation in other jurisdictions is the AI system "Zero Trust." Developed jointly by the Chinese Academy of Sciences and the CCP's internal control institutions, "Zero Trust" collects data from more than 150 central and local government databases to identify suspicious and potentially treacherous behavior amongst government officials at all levels.[289] Aside from the feasibility concerns and due process implications, the widespread use of such a system might have unintended consequences that affect institutional capacity. One researcher involved with the project stated that while the AI is good at identifying corrupt officials, it "is not very good at explaining the process it has gone through to reach such a conclusion."[290] This use of AI in this context will certainly affect the behavior of government officials who are subject to it. While it is not immediately clear how government officials might change their behavior to avoid being

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287 Youwei, *The End of Reform in China*, FOREIGN AFF. (June 4, 2015), https://www.foreignaffairs.com/articles/china/end-reform-china.

288 Meng Yu & Guodong Du, *Why are Chinese Courts Turning to AI?*, THE DIPLOMAT (Jan. 19, 2019), https://thediplomat.com/2019/01/why-are-chinese-courts-turning-to-ai/.

289 Stephen Chen, *Is China's Corruption Busting AI System 'Zero Trust' Being Turned Off for Being Too Efficient?*, SOUTH CHINA MORNING POST (Feb. 4, 2019), https://www.scmp.com/news/china/science/article/2184857/chinas-corruption-busting-ai-system-zero-trust-being-turned-being.

290 *Id.*

targeted by a machine that could end their careers without an intelligible explanation, it is reasonable to conclude that government officials would change their behavior in response to monitoring from such a system, and that mass behavioral changes would affect the capacity of government institutions to govern. As noted above, recent changes to party discipline rules have already exacerbated problems of institutional paralysis and incompetence due to officials who are afraid of acting "incorrectly." Adding a seemingly capricious AI monitor into the mix likely will not alleviate the problem.

Progress on AI regulation in China has thus far focused on language without addressing the potential for institutional change. During a lecture series of the 13th National People's Standing Committee, the Chinese Academy of Sciences' Tan Tieniu stated that, compared with other areas of AI, China's "formulation of laws and regulations and risk management are relatively lagging." [291] He encourages "vigorously strengthen[ing] legislative research in the field of AI" in order to "formulate corresponding laws and regulations." He warns against overhyping AI's capacity and states that applications of AI must be "appropriate."[292] However, regulating AI requires more than just paying lip service. Regulatory language, no matter how sophisticated or thorough, will not implement itself. When looking at "AI governance," it is necessary to pay attention to institutional context. This is as true in China as it is for the rest of the world. Critics argue that government and private company-issued ethical AI guidelines and ethics committees are often merely "ethics theater" or "ethics washing," a mere veneer that is too vague to be effective, if not explicitly designed to fail. [293] On the other hand, "ethics" without clear structures of internalization and implementation could serve more to justify certain actions after they are taken, rather than a priori shape behavior in a positive direction. AI ethics might devolve into "AI ethics with Chinese characteristics" that end up meaning and justifying whatever the CCP would like at any given time.

To be effective, regulating the myriad technologies that fall under the umbrella of "AI" requires more than merely discussing them. It requires sophisticated institutions that have the capacity to respond to

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[291] Cameron Hickert & Jeffrey Ding, *Read What Top Chinese Officials are Hearing About AI Competition and Policy*, NEW AM. DIGICHINA (Nov. 29, 2018), https://www.newamerica.org/cybersecurity-initiative/digichina/blog/read-what-top-chinese-officials-are-hearing-about-ai-competition-and-policy/.

[292] *Id.*

[293] Daniel Susser, *Ethics Alone Can't Fix Big Tech*, SLATE (Apr. 17, 2019), https://slate.com/technology/2019/04/ethics-board-google-ai.html.

novel problems in real time in ways that are efficient and, ideally, just. Nevertheless, instead of responding to the development and deployment of AI technologies with institutional reforms that improve the capacity of government agencies and courts to respond to new and complex problems, the central government is simultaneously clamping down on agency and judicial flexibility while ordering its own organs and provincial governments to prioritize AI.

The OECD list of AI guidelines, even if it is sparse, is an example of international efforts to discuss the future of AI and society.[294] Beyond that, it does not appear that any country has a "coherent strategic approach to the governance and regulation of AI" at this time.[295] Given the breadth of how AI is defined, any "coherent strategic approach" would likely be a quixotic effort without institutions in place that can flexibly respond to the complex problems that AI creates. "Governing AI" is not simply a matter of intent, but also of institutional capacity. Guidelines and principles such as those released by the OECD, the Chinese government, and other international actors are important for framing perspective and catalyzing conversations, but they are insufficient in and of themselves to actually govern AI.

In recent years, the Chinese central government has overseen campaigns against "Western"[296] or "universal" legal values and institutions such as constitutionalism, political and civil rights, separation of powers, and independent judiciaries. However, these concepts, in addition to being manifestations of values, are also methods of institutional capacity. Such institutions help harmonize complex market and social forces by preserving the capacity to modify and push back against government and private sector action in various ways. When people refer to how AI is used in society today, much of what they discuss is the use of algorithms for automated decision-making and autonomous machines in different industries. For instance, the GDPR includes a number of regulatory controls on the use of algorithms in different contexts.[297] The US does not have a grand, national regulatory plan for AI. However, states, courts, private companies, and civil society organizations have all taken concrete action to modify existing laws and institutions in response to the use of AI in different industries.

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[294] *Recommendations of the Council*, *supra* note 22.

[295] Madhumita Murgia & Siddarth Shrikanth, *Quoting Harry Armstrong, How Governments are Beginning to Regulate AI*, FIN. TIMES (May 29, 2019), https://www.ft.com/content/025315e8-7e4d-11e9-81d2-f785092ab560.

[296] Cohen, *supra* note 109.

[297] *General Data Protection Regulation*, *supra* note 207.

California's Assembly Bill 5 would respond to the employment issues brought on by the use of algorithms in the "gig economy" by defining many gig workers as employees, thereby bringing them under the protection of the employment law regime.[298] The New York City government created a task force that provides recommendations on how information used by agency automated decision systems should be shared with the public and how agencies should address instances in which people are harmed by agency automated decision systems. [299] In an interview, James Vacca, the council member who spearheaded the bill, stated that he wants to prevent government from being "black-boxed" and that he sees this task force as a means of doing so.[300] Many laws include algorithms in their definitions of scores or other metrics in different industries. For example, Indiana's definition of an "insurance score" includes "an algorithm, computer application, model, or other process that is based on credit information for the purpose of predicting the future insurance loss of an individual customer."[301] Also, some legislation mandates the use of particular algorithms in state decision-making, such as Washington State's determination of education spending per student.[302] Lastly, some states use algorithms for various functions and require the disclosure of these algorithms and their use as a matter of process. Maine, for example, requires that human services fraud investigations disclose to the public any algorithm used in the course of an audit.[303] It is important to note that while these laws govern the use of algorithms that could be considered "AI," the phrase "AI" does not have to actually be mentioned in order for these activities to be regulated. It is more important for legal institutions to have the capacity to respond to new technologies in different industries than it is to define and carve out a special place for everything under the "AI" umbrella.

American private sector companies also play a role in "regulating AI." Some industries, such as that of autonomous vehicles, keep databases of state and local regulations.[304] Many American tech

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298 CAL. LAB. CODE § 3351, 2750.3; CAL. INS. CODE § 606.5, 621 (2018).

299 N.Y.C. LOCAL LAW 49 (2018), https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=3137815&GUID=437A6A6D-62E1-47E2-9C42-461253F9C6D0.

300 Elizabeth Zima, *Could New York City's AI Transparency Bill be a Model for the Country?*, GOV'T TECH. (Jan. 4, 2018), http://www.govtech.com/policy/Could-New-York-Citys-AI-Transparency-Bill-Be-a-Model-for-the-Country.html.

301 IND. CODE 27-2-21-11 (2016).

302 WASH. REV. CODE 28A.300.507.

303 ME STAT. Tit. 22, § 13 (2018).

304 The National Council of State Legislatures has a compilation of laws and regulations pertaining to autonomous vehicles available at http://www.ncsl.org/research/transportation/autonomous-vehicles-self-driving-vehicles-enacted-legislation.

companies, in addition to establishing sector-wide organizations such as the Partnership for AI that can articulate specific values and best practices, also routinely utilize legal tools to shape the future of the technologies they make. Apple, to the frustration of the US government, has developed default encryptions within its operating system that shield user activity from the company itself and has resisted government efforts to require it to hand over data.[305] Microsoft and Apple have also litigated issues of data security and jurisdiction with the U.S. government.[306]

Civil society organizations also shape the regulation of AI. The AI Now Institute, for instance, has published several reports on the different uses of algorithms and their impact on society.[307] One such report offers recommendations for how individual citizens and other civil society organizations can litigate violations of civil rights caused by algorithms.

The involvement of state and local governments, private sector actors, and civil society organizations in the governance of AI in the U.S. does not merely demonstrate U.S. values of civil liberties and independent judiciaries. Rather, it shows how institutions such as advocates of civil liberties and independent judiciaries can take initiative in effectively "governing AI" by responding to real problems in different sectors and areas of society in a distributed, ad hoc manner. While the federal government has not yet issued a centralized regulatory plan with regard to AI, existing institutions are already dynamically responding to AI usage in real time.

This does not appear to be the case in China. I am not aware of any civil cases involving individuals suing due to an unfair use of an algorithm by a company or the government. In a society in which private companies, local governments, and civil society groups are heavily tethered to the central government and its ideological controls, how can organizations pushback against harmful or ineffective uses of AI? Since "AI" development is so important to the central leadership, how can local and non-governmental entities shape the development of the

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[305] Apple's Security Programs are outlined on its website. *See* APPLE, iOS Security (May 2019), https://www.apple.com/business/site/docs/iOS_Security_Guide.pdf.

[306] *See* Jaap Arriens, *The Apple FBI Debate Over Encryption*, NAT. PUBLIC RADIO, https://www.npr.org/series/469827708/the-apple-fbi-debate-over-encryption; Sarah Jeong, *The Supreme Court Fight over Microsoft's Foreign Servers is Over*, THE VERGE (Apr. 5, 2018), https://www.theverge.com/2018/4/5/17203630/us-v-microsoft-scotus-doj-ireland-ruling.

[307] AI Now's reports can be found here: https://ainowinstitute.org/reports.html.

technology without acting in ways that might be perceived as a challenge to the central government's mandates?

For example, despite the strengths of the National AI Standardization Group's "AI Ethics Risk Analysis Report", its place in the broader Chinese government institutional context might limit its impact. The report fails to take into account how the sort of institutional change it recommends inherently involves changing power dynamics. It also does not address the extent to which questioning policy decisions is a politically charged task in China. For instance, the report still recognizes a "correct" way to do things.[308] In its discussions of "algorithmic security" and "abuse of algorithms," it does not address the complex reality that different organizations, individuals, and industries have different perspectives of these issues based on their own specific contexts. Rather, the report assumes that ethical problems with AI and its deployment can be predicted and prevented by the correct technocrats.[309] When it comes to technology and social change, even the most seasoned experts cannot predict everything. This is one of the reasons why civil society organizations and institutions like independent courts that offer individuals a means of pushing back against government and private company abuse are so important.

The National AI Standardization Group report states that relevant actors should "clarify different kinds of algorithmic application domains" and "strictly limit application boundaries."[310] Many of the institutional and policy recommendations that the report makes take for granted a high level of cooperation and an environment of open information sharing. As mentioned in a previous section, Chinese tech companies face problems of hyper-competition and mistrust, even internally, and some government agencies suffer from paralysis and fear of the extra-legal Party disciplinary organs.[311] Can the ethics committees and small groups that the report recommends question company or government policy? "Ethics" means different things to different people in different contexts. Many of these contexts are highly political. For example, the Chinese government has recently faced a great deal of international criticism over the use of mass surveillance

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308 *See* National Artificial Intelligence Standardization Group, *supra* note 193. The authors use wording such as "correct" (正确) throughout the report.

309 *Id.* at 9–10 and 24–26.

310 National Artificial Intelligence Standardization Group, *supra* note 193, at 26.

311 *See supra* Section III.

and internment camps in the Xinjiang region.[312] Could ethics committees or small groups in Chinese companies discuss the ethical implications of how the government uses AI technology in that context (particularly one of the most ambitious and apparent examples)? If not, what is the point of having ethics committees at all?

Additionally, the National AI Standardization Group report recommends that enterprises act according to the relevant laws, rules, and standards without saying what those laws, rules, and standards are.[313] Pointing out that the law is important is valuable, but simply telling companies that they need to obey the law says more about the state of law than it does about the state of AI development. Why is it necessary for a report to encourage businesses to follow the law? Furthermore, if there are problems of legal compliance in tech companies, simply stating that they should follow the law likely will not change much by itself. The report recognizes this when it comes to ethics; as discussed above, it recommends a number of institutional and business practice changes to help companies understand, internalize, and respond to ethics concerns. However, it does not offer similar recommendations when it comes to law and the updating of legal institutions.

In his comments on the Beijing AI Principles, MIT's Yasheng Huang is optimistic, particularly when it comes to language in the Principles referring to personal freedoms. He states that "by describing the issues subject to conversation and dialogue, [the Chinese government] is conceding that [AI ethics] is not something they have the right to control one hundred percent."[314] While the Beijing AI Principles are an encouraging step, the mere presence of encouraging language does not indicate that the government is serious about "conversation and dialogue" or the kind of institutional change that would make the Principles meaningful. The PRC Constitution contains language guaranteeing a host of civil rights, including various personal freedoms. However, Beijing has condemned the mechanisms necessary to enforce such rights, including constitutionalism and the judicial independence necessary to protect rights against state action, as

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312 Ben Blanchard, *China Urges 'Objective View' of Xinjiang after Turkey Criticism*, REUTERS (Feb. 27, 2019), https://www.reuters.com/article/us-china-xinjiang/china-urges-objective-view-of-xinjiang-after-turkey-criticism-idUSKCN1QG10M.

313 AI Risk Analysis Report, *supra* note 193.

314 Will Knight, quoting Yasheng Huang, *Why Does Beijing Suddenly Care About AI Ethics?*, MIT TECH. REV. (May 31, 2019), https://www.technologyreview.com/s/613610/why-does-china-suddenly-care-about-ai-ethics-and-privacy/.

"Western" and not appropriate for China.[315] If the central government remains the only entity that has the right to interpret AI ethics and interprets them in changing ways that preserves its own flexibility and strategic ambiguity, it is unlikely that local government entities or private companies will ever meaningfully be able to internalize, let alone shape, such capricious rules.

This dynamic could catalyze a situation wherein the central government's "strategic ambiguity" devolves instead into a kind of "chaotic ambiguity." The very institutional dynamics that give the central government great rhetorical power and flexibility could foster greater confusion and uncertainty among bureaucrats and entrepreneurs. Combining rigid ideological centralization, the political impetus to "succeed" in AI, and ambiguous rules could produce a volatile outcome; institutional integrity and entrepreneurial creativity could get swept up in the central government's vortex of ambiguity. In their race to predict what exactly would appease the government in its requirements for "winning" in AI, bureaucracies and private companies might be tempted to ignore real problems as they arrive, prioritize rhetoric over substance, and sacrifice long-term planning for the sake of risky, political, short-term concerns.

The Chinese government's plan to leapfrog other countries in regards to AI evokes another time in China's history. The "Great Leap Forward" was a plan to surpass other nations' capacities for agriculture and industrial manufacturing, and combined a heavily centralized government under strongman Mao's leadership with a politically important goal. During the "Great Leap Forward," political protocols outweighed substantial agricultural and industrial outputs, let alone the development of the institutions that make such outputs sustainable, in importance. Mao's contemporaries celebrated the "victory" of steel produced by local furnaces instead of typically big "foreign furnaces." In actuality, most of the steel produced in such local furnaces was too crude to use.[316] Other officials grossly exaggerated production statistics. In order to avoid the end of their political careers, many party officials overinflated their production numbers so as to be in line with Great Leap Forward policies. For instance, the recorded total grain output for 1958 was 375 million tons, while the actual output was later estimated by

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315 Cohen, *supra* note 109, at 1–3.

316 PEI-KAI CHENG ET AL., THE SEARCH FOR MODERN CHINA A DOCUMENTARY COLLECTION 400–6 (1999).

economists to be about 215 million tons. One of the worst famines in human history followed.[317]

During the Great Leap Forward, farmers and manufacturers could not simply grow crops and smelt steel. They could not experiment with different institutional frameworks and technical processes. Instead, they had to do it the "correct" way so as to make China the world's leading grain and steel producer. In its rush to maintain strict ideological and institutional control, Mao and the central government neutered society's real capacity to build. While government officials found ways to "succeed," the Great Leap Forward catastrophically failed overall.[318] While I seriously doubt that AI governance will somehow lead to famine, a similar dynamic could damage China's institutions and the central government's capacity to both identify and respond to problems. Even if it is more difficult to fake output statistics in today's China, definitions of "AI" and its "success" are much more transient than concrete things like grain or steel. Hype is unlikely to succeed as a governance strategy.

VIII. RECOMMENDATIONS AND CONCLUSION

This paper has explored how the ambiguous state of AI, combined with increasingly centralized control by China's government, indicate that regulation of "AI" is a rhetorical claim—an announcement that AI is a battle for the future and a battle that China will win. China's regulation of AI via plans, delegation of unclear regulatory responsibilities, and standards point towards the goal of a monopoly over the legitimate use, definition, and description of AI and its potential benefits. While at first glance these efforts may seem to increase the central government's power over society by allowing the government to take advantage of strategic ambiguity, they may also contribute to broader institutional decay and devolve into chaotic ambiguity, harming China's economy and society in the long run.

There are steps that China, and any other government interested in regulating AI, can take in order to reduce ambiguity and prevent potential institutional decay:

- First, government agencies could be more specific with their use of the phrase "AI." Instead of "regulating AI" and all that might entail, they could articulate more specifically what is being controlled. Avoiding the phrase "AI," and instead focusing on specific uses of the technology and specific

317 JONATHAN SPENCE ET AL., THE SEARCH FOR MODERN CHINA 550 (1999).
318 *Id.*

impacts on humans might be a more appropriate approach towards governing AI.
    - On a related note, framing AI as a grand geopolitical competition risks being contradictory at best, and potentially destructive. AI has historically developed across different companies, markets, institutions and cultures.
- Second, government agencies should focus on legal and political institutions and their capacities when developing regulations for AI. Rhetoric is insufficient by itself. Regulators should also ensure that agencies have the capacity to enforce, and companies the capacity to internalize, AI rules and norms.
- Third, Chinese leadership should take steps to ensure that political ambitions do not destroy institutional processes as different agencies figure out how to regulate AI. Greater institutionalization would deepen China's broader political and economic reforms. A more nuanced approach to what constitutes political success might allow different agencies to become more vibrant and diversified in their expertise. The government should take steps to ensure that private sector and civil society actors feel safe in discussing the consequences of deploying AI in different sectors.
- Fourth, Western observers of China should avoid overinflating Chinese AI capabilities and view grand pronouncements such as the AI Development Plan in the greater context of China's political system, legal institutions, and ideological ecosystem.
    - This is especially true for policymakers and scholars interested in a comparative perspective of AI development. When comparing the state of AI and AI regulation in different countries, it is important to not only look at the different text of national plans but also view such plans within different legal and political contexts.

Hopefully, the Chinese government will find ways to ensure that its push for AI dominance and AI deployment throughout society will lead to better institutional governance and economic stability and prosperity.