



PERSPECTIVES

PROGRAMMING CHINA:

The Communist Party's autonomic approach
to managing state security

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MAIN FINDINGS AND CONCLUSIONS

- The Chinese Communist Party (CCP) has developed a form of authoritarianism that cannot be measured through traditional political scales like reform versus retrenchment. This version of authoritarianism involves both “hard” and “soft” authoritarian methods that constantly act together.
- The CCP’s objective to manage and maintain power requires a process of pre-emptively ensuring what, under Xi Jinping, is described as “holistic state security.” State security is largely upheld by a process called “social management.”
- Social management resembles a feedback loop: i.e. a cycle of shaping, managing and responding, both in society and within the Party itself. It is a version of Mao Zedong’s “Mass Line” way of organizing the Party and its relationship with society.
- To describe the social management process, this paper introduces a new analytical framework called China’s “Autonomic Nervous System” (ANS). This approach explains China’s social management process through a complex systems engineering framework. This framework mirrors the CCP’s Leninist way of thinking.
- The framework describes four key parts of social management, visualized through ANS’s “self-configuring,” “self-healing,” “self-optimizing” and “self-protecting” objectives.
- This paper illustrates how these objectives provide a visualization of the CCP’s social management strategy. The most recent developments of the strategy are found in:
 1. A centralized state security apparatus serves the objective of a “self-configuring” central system that can support the optimal operation of the sub-systems within it.
 2. The “self-healing” objective is being realized through grid policing to pre-empt perceived threats to the CCP’s control.
 3. Society’s responsibility to participate in its own management is being automated through the Social Credit System, helping the system to “self-optimize” its control.
 4. A multi-layered system of national defense mobilization is meant to serve the “self-protecting” objective, both as it relates to emergency pre-emption and response.
- The CCP has clearly explained that it sees innovating social management as its blueprint for maintaining power. ANS, describing this innovation, demonstrates how advances, particularly through application of technology, can enable the CCP’s ideal form of authoritarianism, which integrates cooperation and coercion. China’s ANS demonstrates how this approach involves attempts to “automate” the social management process through technology designed and implemented based on the same complex systems engineering concepts.
- Even if technology is successful in “automating” China’s social management process, technology alone cannot eliminate the problems it attempts to resolve. This means that the CCP’s political system will always depend on the functioning of traditional measures, including but not limited to propaganda and anti-corruption drives, to control power and loyalty to the Party if it is to succeed as envisioned.

1. Introduction

Xi Jinping's Work Report at the 19th Party Congress in October 2017 invoked the Leninist idea of the "vanguard Party," stating that, "to lead the people to a better life is the Party's abiding goal." Found in the introduction of a section on "Growing Better at Ensuring and Improving People's Wellbeing and Strengthening and Developing New Approaches to Social Governance", it helps to demonstrate how the concept "social governance" (社会治理) (the term used for "social management" 社会管理 under Xi) remains a manifestation of Marxism-Leninism.¹ Social management would be easy to dismiss as turgid Communist jargon, but it has long been a critical concept describing an ideal-type governance system that serves the Party-state leadership's power-securing objectives. Social management, therefore, is a process that "programs" China's state security (国家安全).

At its core, social management is an expansion of the Maoist "Mass Line" ideological mobilization methodology.² This methodology generates a feedback loop: it is a continuous process of shaping, managing and responding.³ The process is explicitly directed at securing and advancing the CCP's power. Implementing this social management process requires the creation of a complex system of governance addressing many aspects of state control, yet one that is flexible enough to manage competing, changing and often conflicting challenges.

Social management is made less abstract through recent developments like increasing sophistication of surveillance technology and the design of China's "Social Credit System." Often discussed in isolation, these are connected features that represent attempts to automate the CCP's broader social management strategy.

This application of technology to social management is rooted in discussions on social management and complex systems management originating in the late 1970s and early 1980s. More than an ideal discussed among key Party theorists, social management's automation has been an explicit objective of the Party-state leadership for well over two decades. In 1995, for instance, Jiang Zemin called for: "...accelerat[ing] realizing the informatization, automation and intelligent-ization of economic and social management."⁴ This planning reinforces the notion that the social management system has been structured as a complex system. In this sense, technology should be understood as a tool used to automate a Chinese model of authoritarianism, which is based on complex systems engineering.

To describe social management and how its automation is envisioned this paper introduces a new analytical framework called China's "Autonomic Nerv-

ous System" (ANS). The ANS framework explains how the Party's Leninist way of thinking, which has a natural resonance with complex systems management theories, is directly applied to the PRC's political system design.

2. The CCP and complex systems engineering

One of the earliest voices on the subject of social management's automation through technology and systems thinking was the influential Marxist theorist Yu Guangyuan.⁵ In 1977, Yu wrote that like the application of natural science to Marxism, China's "modernized production management and social management established based on automation also require widespread application of the technologies stemming from modern natural science."⁶

The advancements Yu referred to were made in the mid-20th century in areas like mathematics, engineering and technology. These were pioneered by researchers such as Norbert Wiener, the mathematician and philosopher who pioneered cybernetics, and Claude E. Shannon, the mathematician, cryptographer and electrical engineer who is credited with founding information theory.⁷ In China, two influential leaders of this way of thinking were scientists Qian Xuesen, the "father of Chinese rocketry" and the author of *Engineering Cybernetics* (1954), and Song Jian, a renowned scientist and cybernetics expert.

A critical aspect of this different way of problem solving is that it views a system as an organism in a dynamic, non-linear environment. As it relates to social management, the way of thinking is not limited to the potential application of technology itself, but is inclusive of how the social management system must be designed before automation objectives can be realized.

The social management system seen in China today is influenced strongly by Song's and Qian's work, among others. The way of thinking they promoted has influenced thinking of successive CCP leaders. In fact, Hu Jintao acknowledged the influence of Qian's application of engineering cybernetics on his scientific development concept, saying to Qian in 2008:

"In the early 1980s, when I was at the Central Party School, I listened to your report. Your theory emphasized that in order to handle complex problems, [we] must pay attention to grasping [the problem] from the overall perspective,

At its core, social management is an expansion of the Maoist "Mass Line"

and give overall consideration to all factors involved. This was a very original idea. Now we emphasize scientific development, which is to pay attention to the overall plan, taking into account all factors, and paying attention to all-around coordination to enable sustainable development.”⁸

The report Hu referred to had likely been presented during a “Central Party and Government Lecture Series on the New Technological Revolution” in 1984. A summary of the report, written by Song Jian, said that, “leaps and bounds in science and technology” since the 1940s had “influenced or given rise to transformations in the way social management agencies work.”⁹ In his report, Qian stated that adopting a systems engineering approach in the social domain required, among other things, establishing targets and facilities for systems analysis, a professional team implementing job responsibility, an overall design requirement with capacity for systems analysis, and a senior official with strong leadership and command ability.¹⁰

2.1 LENINISM AND COMPLEX SYSTEMS

The application of systems engineering to upgrade the social management system should be seen more as a natural progression than a fundamental shift in tactic. The concepts behind modern social management can be directly traced to the Mao era. In essence, the CCP has used modern scientific and technological concepts emerging from systems theories to reframe and update Leninist concepts. Among these are three key, and related, ideas that resonate with both Leninism and complex systems engineering: holism, dialectics and dynamic equilibrium.

Holism: In the Party’s way of thinking on management methods, a holistic approach is the starting point. This means simply that a problem is first viewed by thinking about the entire system, not an individual source of the problem within that system. As such, concepts like social management are purposefully and necessarily broad. Social management for instance includes everything from the provision of social services to emergency response. Each of these issues may be addressed on an individual level but are still an integral part of the larger process. Solving of problems on an individual level, a reductionist approach, does take place. As problems are solved however, the whole system is always engaged in a continuous cycle of change and development, making it impossible to solve one problem without considering how the entire system is impacted.¹¹

Dialectics: For the Chinese Communist Party, dialectics are a way of dealing with complex problems. Bertell Ollman argued that the themes of science, cri-

tique, vision and strategy for revolution found in Marxism are “intertwined and so mutually dependent that it is difficult to separate them completely from each other.”¹² The concept of dialectics, as applied to society, suggests society consists of many parts that are not independent of each other; rather, they intertwine. When one part changes, others invariably change with it, forming a natural system characterized by a continuous course of interaction and change.

Dynamic Equilibrium: Dynamic equilibrium describes a process in a constant state of motion. As soon as equilibrium is achieved it will be quickly followed by disequilibrium. In reality, the concept of dynamic equilibrium is not even about maintaining a single dynamic equilibrium, but about maintaining multiple dynamic equilibria within a single system.¹³ In essence: multiple problems are solved, multiple new problems, or new versions of old problems, emerge.

2.2 UPDATING MAOIST SELF-MANAGEMENT

The themes of modern social management are found in the Mao era, particularly through the idea of the “people’s participation” in social management. Social management has also always dealt with an integration of multiple facets of social, economic and political life. In its idealized form, the participation concept is operationalized through the combination of cooperative and coercive tactics. Together, these objectives describe “self-management.”

The idea of self-management is still a critical part of social management. In fact, the “social governance” section of Xi’s work report at the 19th Party Congress highlighted public participation, stating that society’s self-regulation and residents’ self-governance reinforce each other. Self-management, however, does not imply autonomy. Instead it describes the ideal function of the CCP’s governance system. To achieve self-management requires the successful automation of government functions through a combination of cooperative and coercive government tactics.

The template for the CCP’s social management process was visible in the Mao era. During the Great Leap Forward, one 1958 CCP Central Committee directive printed in the *PLA Daily* described the commune system. It said commune members were being recruited “extensively to participate in social management”.¹⁴ It added that voluntary passion for social management should be identified and absorbed with the aim to strengthen the Party. In its ideal form, the commune system was a self-managing unit of production. The commune was also directed at the self-management of social life, the allocation of resources, administration

Self-management describes the ideal function of the CCP’s governance system

and Party-state power.¹⁵ In actuality, the Great Leap Forward involved the extensive use of violent coercion, and resulted in famine and the deaths of at least 30 million people in rural China, or even, if Frank Dikötter's research is correct, at least 45 million people.¹⁶ Nevertheless, most of the key concepts and objectives in the idealized version of the commune system, described in the 1958 central committee directive, have remained consistent.

Work units, *danwei*, offer a similar example. *Danwei* were not only places of work. They were also tools for political mobilisation, which used co-option and coercion. Work unit members were allocated public goods and were classified based on their "good" or "bad" political standing.¹⁷ The division of society into smaller units did not allow autonomy from the Party. Instead, the divisions were directed at the creation of subsystems to enforce political control over a physical space. The key concepts and objectives in this example have remained consistent, even though social management no longer involves the concept of joining individual units of production to the process of social organization. The obvious difference is that in the present day, mass mobilization is not as visible as it was in the Mao era. The tactics have been redesigned, the objective has not.

3. The ANS framework

In order for any system to successfully operate, it must achieve "dependability." For instance, in the computing technology world, "dependability" is defined as a system's "reliability, availability, safety, security, survivability and maintainability."¹⁸ In simpler terms, it means reliance can "be placed on the service [a system] delivers."¹⁹ Manual decision making and implementation in a system managing tens or even hundreds of demands is possible. But as a system becomes increasingly complex, successful manual management becomes a less likely outcome.

Using the computing technology example, consider that for a system to function, hardware components require software to tell them which tasks they must perform. Over time, both software (programming) and hardware (system components) have become so complex that it is impossible to manually handle constantly changing and often conflicting demands in a timely and decisive way. This problem in computing drove International Business Machines (IBM) to coin the phrase "autonomic computing" in 2001, which described the vision for developing self-managing computing systems.²⁰

Denoting "self-management," an autonomic system works through an "automation of responsibility including some decision making for the successful operation of the system."²¹ Unlike an "autonomous" system, an "autonomic" system is classified as 'involuntary,' and 'spontaneous.' An autonomic system operates in a dynamic environment and is effectively able to help reduce burdens on a complex system through the automation of lower level, but still vital, decision making and implementation.²²

Although "autonomic computing" is derived from the biological autonomic nervous system, there is a key difference between the biological and computing versions: autonomicity must be constructed in computing, it does not naturally occur as it would in a healthy organism. In order to construct autonomic functions, four self-managing objectives must first be realized: [1] Self-configuring, [2] Self-healing, [3] Self-optimizing and [4] Self-protecting (see Table 3).²³ These four objectives cannot operate independently, but instead must be realized as parts of a whole system.

Within each of these four self-managing objectives (the "Four Self-"s) is another control loop. It describes how each of the "Four Self-"s objectives is realized individually. The control loop is abbreviated as "MAPE-K" and stands for Monitor, Analyze, Plan, Execute- Knowledge. It describes a process of continual adjustment according to a constantly changing internal and external environment.

This process can be described as the interaction of two channel types: a Sensory Channel and a Motor Channel. The Sensory Channel describes the capacity to sense the state and changes in its internal and external environment (or "Monitoring" and "Analyzing" the current state and environment). The Motor Channel describes how an attribute, reacting to and countering the effects of changes, adapts to maintain equilibrium (or the "Planning" and "Execution" of decisions and change).²⁴ The successful operation of this process means that a system is constantly adapting in order to prevent faults and to handle faults when they inevitably occur. The end goal is not a system without faults. The goal is a system capable of ensuring that faults do not cause the entire system to collapse.

The goal is a system capable of ensuring that faults do not cause the entire system to collapse

Table 3

The “Four Self-”s



Self-Managing Objective	Definition	The CCP’s Objectives
Self-Configuring	A process of readjusting automatically “to respond to changing circumstances, or to support the process of ‘self-healing’, ‘self-optimization’ or ‘self-protection’” ²⁵	Adjustments in government structure aimed at supporting the social management process through vertical and horizontal integration, and also at controlling the power of the individuals and agencies controlling vast state security resources.
Self-Healing	A system’s ability in “the reactive sense” to self-fix faults, and in the “proactive sense” to predict and prevent faults	A pre-emptive management of threat at the source. The attempt to automate this process is found through application of advanced surveillance technology to grid management.
Self-Optimization	A system’s ability to “dynamically optimize its own operation”	Pre-empting challenges to the Party’s control via creation of a system, in which every member of society has the responsibility to participate in their own management. The attempted automation of this process is found in the Social Credit System.
Self-Protecting	The system’s “capability of protecting itself through perception of potential threats and prediction of outcomes of situations in the environment, and through self-configuring to minimize potential harm”	Preparation for response to emergencies of all types through more effective coordination and pre-emption. The attempted automation is found through efforts to integrate technology applications to support emergency pre-emption and response.

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4. Engineering China’s Autonomic Nervous System

The objectives of China’s social management process directly correlate with autonomic computing’s “Four Self-”s. In particular, the language of the 12th Five Year Plan (2011), in which the phrase “social management” was included as a key objective, illustrates how China’s social management mirrors the “Four Self-”s in autonomic computing. The plan called for speeding up the establishment of a [1] “social management system” that combines [2] “source governance,” [3] “dynamic management,” and [4] “emergency response.”²⁶

These four social management objectives under Hu Jintao have clearly persisted thematically under Xi Jinping, even if the preferred word choices have changed. Under Xi, the process is more explicitly placed within the state security system and rhetoric. The technology designed to enable each of China’s “Four Self-”s objectives to automate is also more pronounced under Xi.

4.1 SELF-CONFIGURING

Social management requires the configuration of an organizational structure that can support the success of the “source governance,” “dynamic management,” and “emergency response” objectives. It explains why the 12th Five Year Plan also called for “the integration of power” and “the overall coordination of all sides to improve the leadership of society, the organization of society, the management of society, and the capacity to serve the community.”

Likewise, the ANS Self-Configuring objective requires a central system that can support the optimal operation of the sub-systems within it.²⁷ This social management system must optimize interactions vertically (within the Party), and horizontally (between agencies).²⁸ The structure must be flexible, enabling the system’s reactions to adapt to issue-based, geographical and situational differences.

The post-Mao effort to create this architecture began in the 1980s and accelerated after Tiananmen. It is visible in the Comprehensive Management of Public Security (社会治安综合治理, CMPS) system, which emerged in the 1980s (CMPS is the common translation, although a more precise translation, and a translation that better captures the meaning of the phrase, is “the comprehensive governance of social order”). CMPS, as part of the Political-Legal system apparatus, reflected an

The structure must be flexible, enabling the system’s reactions to adapt to issue-based, geographical and situational differences

attempted structural integration of internal security and social resources aimed at producing a more effective social management system. The development of the CMPS system partly responded to issues in coordination between the Political-Legal departments and the Party's grassroots system. It is an approach that has always called on both cooperative and coercive tactics constantly acting together.

The Political-Legal system became steadily more powerful throughout the 1990s and into the early 2000s. The individuals in control of the day-to-day operation of social management possessed a growing individual power that corresponded with their control over vast material resources for maintaining the Party-state's power. A problem that will not disappear is that the political system's structure must be able to control the contestation for power within the Party, while simultaneously ensuring the Party's own absolute power. By mid-2012, a shift was evident through a series of articles in the *Study Times*, *Red Flag* and *Seeking Truth* – all publications by the Central Party School, whose president was Xi Jinping from 2007 to 2012.²⁹ This discussion pointed to a central problem in building a social management process: creating a dependable institutional mechanism to serve the Party leadership's interests.

The Central State Security Commission (CSSC) created in 2013 is designed partially as a response to the structural problems identified in the summer of 2012.³⁰ The CSSC acts as an overarching policy formation and crisis pre-emption body. The CSSC's primary function is the coordination of the work of all key agencies and ministries charged with ensuring state security. The CMPS system has not disappeared nor have its functions diminished, but on the policy formation level the system has now been aligned under the state security umbrella.³¹

With Xi Jinping as CSSC chairman, the committee centralizes state security policy design and coordination at the Politburo Standing Committee (PSC)-level directly under the "most powerful" person in the Party. The CSSC reportedly consists of a standing committee and several sub-committees, which are either formed on a permanent or ad-hoc basis, and it is designed to coordinate work on state security.³² These sub-committees are cross-agency and departmental, horizontally coordinating work on an issue basis. The CSSC enables the optimization of interactions vertically (within the Party) and horizontally (between agencies). The CSSC's structure and membership is replicated across the country, where provincial, city, county and district governments have established State Security Work Leading Small Groups (SSLSGs).³³

On paper, the CSSC-led system creates the structural integration required to support policy formation and dissemination as well as to control power from the top down. If it works as intended, the ANS Self-Configuring objective would cre-

ate structural support for the remaining objectives of China's ANS: 'self-healing' (source governance), 'self-optimizing' (dynamic management) and 'self-protecting' (emergency response).

4.2 SELF-HEALING

The source governance aspect of social management is described through China's ANS Self-Healing objective. The 12th Five Year Plan described the objective of strengthening "source governance" as: "[paying] more attention to the construction of civil utility and institutions, [and persevering] with scientific and democratic decision making according to law, to prevent and reduce the emergence of social problems."³⁴

Self-healing can be defined as: "In the reactive sense, the capability of self-fixing faults" and, "in the proactive sense, the capability of predicting and preventing faults."³⁵ For China, the objective relates to threat management. China's holistic state security concept describes threats to state security as coming from both inside and outside the Party, and inside and outside the state's borders.³⁶

Managing the threats that the Party-state leadership perceives requires pre-emption. Pre-emption can be automated through technology. Just like the self-healing attribute, source governance is directed at identifying problems, preferably pre-emptively, and fixing them.

China's ANS Self-Healing objective is achieved within a defined real or virtual space. Source governance involves the improvement of surveillance that can detect and monitor and handle threats (through both cooperative and coercive methods). Historically, the method for controlling the grassroots organization of the Party took place through a system of grids (a social control system that in China is not unique to the CCP but originated during the Song dynasty).³⁷

Modern grid policing was being implemented between 2001 and 2002 in separate localities across the country. In this early stage, it was characterized mostly by enhanced monitoring and surveillance and more efficient data sharing within designated areas and within public security bureaus. The attempt to automate social management through grid policing significantly expanded under Hu Jintao. This project was largely under the direction of Zhou Yongkang, Minister of Public Security (2003-2007) and head of the Central Political-Legal Affairs Committee (2007-2012). Within a few years of grid policing's initial appearance, the more encompassing "grid management" (网格化管理) began to publicly emerge. This method also helps support non-coercive tasks of social management, such as the provision of social services.

The political system's structure must be able to control the contestation for power within the Party, while ensuring the Party's own absolute power

It could be said that modern grid management is an early attempt at an automated version of the commune and *danwei* systems, except now in defined grid spaces. Grid management has enabled the organization of data to generate better situational awareness and predictive capacity, as well as enhanced tracking and monitoring of individuals.³⁸ Operating in physically and virtually separated grid areas for surveillance and knowledge building, the system can support both cooperative and coercive social management tactics.

The ANS Self-Healing objective, from the Party state leadership's perspective, has likely generated a more reliable form of source governance. This success taken alone, however, would not allow China's ANS system to function as a cohesive whole. Further integration is required.

4.3 SELF-OPTIMIZING

When the 12th Five Year Plan elevated social management to the status of a key objective, it called for strengthening the "display of the government's leading role, strengthening social management and public service functions, building a service-oriented government and raising service-oriented management capacity."

The Party's concept of "dynamic management" relates to China's ANS Self-Optimizing objective. The ANS Self-Optimizing objective describes maximizing resources and pre-emptively "initiating a change in itself to improve performance or service quality."³⁹

The Party's definition of social management has always emphasized "public participation" and "self-management." In the Mao era, this included campaign-style mass mobilization. At the start of the reform era, this management system changed but did not disappear. It has, over time, been incrementally adapted to fit within the current context.

Social management is the management of the entire society, but it also requires the participation of the entire society. Participation does not describe a form of liberalization, but rather a more flexible form of complete control that incorporates both positive and negative reinforcement.

The concept of "responsibility" is key. Responsibility implies that every Chinese citizen, whether they are located inside or outside of the Party, is tasked with fulfilling the responsibility to uphold the Communist Party's leadership. Technology will ideally enable the automation of responsibility. In fact, the "Social Credit System," which monitors and rates citizens' behavior from payment morale and traffic violations to comments on social media, repre-

sents the technological marriage of individual "responsibility" and social control mechanisms.

Social credit creates a form of government performance optimization. Importantly it creates a process for pre-empting threat by changing behaviors that might lead to or exacerbate their manifestation into larger problems. Ideally, it would also aid the efficient management of resources in order to handle threats or problems of all types as they emerge.

Through social credit, society would be co-opted to participate because the same technology is directly linked to conveniences that improve everyday life, for instance electronic payment. At the same time, society would also be coerced to participate, for instance by self-censoring online. Not participating could have consequences not only for the individual but also for their personal networks.

The realization of the ANS Self-Optimizing objective requires the integration of information resources and interoperability of platforms. If social credit becomes successful, the same technology applications used to provide social and commercial services will feed directly into government information gathering and sharing processes.⁴⁰ These are on-going projects, however, and will require multiple phases of development even after initial stages of implementation are complete.

4.4 SELF-PROTECTING

The 12th Five Year Plan, which elevated social management to a key objective, called for strengthening emergency response capacity as part of social management system construction.⁴¹ The "emergency response" aspect of social management is China's ANS Self-Protecting objective.

The ANS Self-Protecting objective describes "a system's capability of organizing its own efforts," and it is "often used relative to networks and communications."⁴² China's ANS Self-Protecting objective is aimed at programming a pre-emptive and response mechanism for all types of crises.

In the hierarchy of response to a domestic crisis scenario, the People's Liberation Army (PLA) would only be deployed in the most serious crisis type – one in which the Party's rule is directly challenged. In that case, the PLA may be all that stands between the Party's survival and its demise. The People's Armed Police (PAP) and other public security organs are equally responsible to the Party. Together, the security forces serve one basic mission: protect the Communist Party.

The most serious threats the Communist Party perceives are dealt with in the "holistic state security" concept. Internal and external security overlap in China's

Every Chinese citizen is tasked with fulfilling the responsibility to uphold the Communist Party's leadership

state security concept. This cannot be simplified as only a combination of domestic and foreign security policy. The concept also describes security issues inside of and outside of the Party.⁴³ Loyalty of the security forces to the Party is key; without it the Party cannot guarantee rapid mobilization in response to the most serious crisis type it perceives. This objective is not guaranteed, which is a key reason for why social management strongly emphasizes “emergency response.”

The structure of China’s defense mobilization committee system, initiated in 1994, is designed for the integration, balancing and coordinating of overall national defense mobilization, and to ensure that the system is capable of “unifying all plans, unifying all organizations, and unifying all actions in order to improve the efficiency of mobilization.”⁴⁴

The national defense mobilization structure and membership at the local government levels indicates that military-civil integration also functions as an emergency pre-emption tactic. On the city, district, and county levels, defense mobilization committees include departments ranging from People’s Armed Forces Departments and Political-Legal Affairs Committees to Women’s Federations and Party Work Committees. At the street level, mobilization is connected to the local committees that are responsible for carrying out political and ideological work, such as civil affairs, cultural, health and family planning, education, and spreading “scientific common sense.”⁴⁵

The structure is also designed to enable more effective and rapid defense mobilization and logistical mobilization for any type of crisis, from a natural disaster to war. The unification of military and government functions further ensures the interests of pre-emptive Party-state security.

Dozens of local governments have described objectives to improve the construction of a grid social management system next to objectives to improve emergency response systems.⁴⁶ The same systems are used to mobilize and coordinate response to unrest. Depending on severity, regular police, SWAT teams, and PAP units are required to coordinate. Grid management systems have an existing joint logistical and joint mobilization function, which is being optimized as technology improves. Grid managers also receive national defence mobilization training, and have also been reported as members of local militia units.⁴⁷

Success of the ANS Self-Protecting objective will ultimately depend on effective coordination and rapid response during a crisis. Technology is being designed to add further coordination to the system. Eventually, it will enable a comprehensive “smart mobilization” system, which utilizes grid management systems.⁴⁸ The objective is to “organically integrate” the national defence mobilization network and the [military] command network. It would allow for “holistic” unification and

coordination to solve problems related to interconnectivity, intercommunication and interoperability.⁴⁹

5. Conclusion

In September 2017, General Party Secretary Xi Jinping highlighted the concept of “automating” social management when he called for: “a more systematic and innovative social governance, stressing the need to improve the capability to predict and prevent security risks.”⁵⁰ The approach Xi described includes the use of technology to help “automate” the social management process. Technology, however, is only one part of a version of authoritarianism being designed since the late 1970s that both embodies and applies complex systems engineering.

The Communist Party must achieve “dependability” in order to continue to secure power. Success in this task requires effective pre-emption and management of all threats to state security. In order to continue building dependability, the Party must always revisit the basic requirements of: [1] ensuring that the Party rank-and-file serve the interests of the Party core; [2] ensuring that the relationship between the Party and society remains stable enough, so that instability never goes beyond the Party leadership’s control. It is the reason why social management, visualized through the ANS framework, is the process that programs China’s state security.

The ANS framework demonstrates that we are witnessing a version of authoritarianism in the PRC that combines both soft and hard elements. This version of authoritarianism is augmented through technology. The critical difference between the ANS framework and traditional approaches for understanding Chinese authoritarianism is that it argues that Chinese authoritarianism cannot be measured through traditional scales of “reform” on the one end versus “retrenchment” on the other. China’s authoritarianism is designed so that in its ideal form both “soft” and “hard” elements constantly act together.

The process of ensuring that the Party remains in power will likely always require a huge amount of the leadership’s resources, even if the “automation” objective succeeds. Ultimately, the success of social management, visualized through the framework of China’s ANS, is the critical determinant of the Party’s preservation of power. From the Party’s perspective, the only way to effectively mitigate threat is through pre-emption. Failure to pre-emptively manage threats could mean that in the event of a cascading series of crises in which the Party’s legitimacy is challenged, the Party has already lost before any physical battle actually begins.

China’s authoritarianism is designed so that in its ideal form both “soft” and “hard” elements constantly act together

- 1 | Social governance” (社会治理) and “social management” (社会管理) have the same definition. The difference in usage is related to politics, not to the objective the concept describes. From here onward, “social management” is always used instead of “social governance,” unless “social governance” is used in the translation of a direct quote.
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