SMART GOVERNANCE,
SMARTER SURVEILLANCE
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Xi Jinping’s 习近平 regard for socialist buzzwords and phrases is legendary. The China Dream 中国梦, the Four Comprehensives 四个全面, The Party Leads Over Everything 党是领导一切的, and, more recently, Common Prosperity 共同富裕 are a few of the more popular framing devices for Xi’s ambitious agenda. But in terms of its ability to encapsulate precisely what is happening on the (political) ground in the People’s Republic of China (PRC) and reflect the Party-State’s raw ambitions, there is one in Xi’s lexicon that rules them all: Modernisation of Governance Capacity 治理能力现代化. This phrase, adopted as the main theme of the Fourth Plenum of the Communist Party of China’s (CPC) Nineteenth Central Committee held in 2019,¹ is now helping to direct and shape new developments in big data and smart surveillance in accordance with socialist ideology, reaching into every part of people’s everyday lives. Aspects of comprehensive smart surveillance are now being written into national development goals and law, thus creating a full package of surveillance, social and economic development, ideology, and governance.

**Governing ‘Over Everything’**

Unlike many of the other rhetorical flourishes that make up Xi’s repertoire of ideological jingles, Modernisation of Governance Capacity is a catchphrase that is true to its name. Much has been said about the current party leadership’s rejection of all things democratic and liberal. But under Xi, the paradigm shift has not merely been about limiting pluralism and protecting against the infiltration of democratic ideas; it has also been about assertively constructing a new system of governance ‘over everything’. The building bricks of this emerging Leviathan include large volumes of big data, cloud computing, and smart governance 智治 — an umbrella term for a scaffolding of data platforms, regulations, and surveillance aids for social governance. Modernisation of Governance Capacity, in the words of a veteran Central Party School scholar Zhang
Weiping 张蔚萍, is ‘a giant, systemic project involving the economy, politics, culture, society, ecological civilisation, and Party-building, among other fields’.²

According to Xi, Modernisation of Governance Capacity provides a concrete, institutional framework for the China Dream of National Rejuvenation.³ It is now baked into all current plans of the Party and the government, including the Fourteenth Five-Year Plan adopted in March 2021. This plan builds on the Party-State’s existing Internet Plus initiatives, described by Premier Li Keqiang 李克强 as ‘a new driving force for economic development’. Internet Plus uses big-data innovations in cloud computing, the Internet of Things (IoT), and mobile Internet to improve government services, regulate the market to spur economic growth, and strengthen social supervision and management processes.⁴ From 2021 to 2025, big data will also enhance a vast array of existing e-governance platforms that aim to make citizens’ interactions with government, especially at the local level, much smoother. Initiatives include, for instance, the provision of smart apps that improve access to government services and social benefits, especially for the vulnerable and disadvantaged, such as the rollout of digital social security cards for migrant workers.⁵

Indeed, it was big data that powered the key measures that successfully contained COVID-19 in the PRC in 2021, prompting authorities to boast of the ‘superior nature of their political system’ 制度优越性 in protecting the lives and welfare of their citizens. In 2020, the COVID-19 crisis created an automated information loop between national, community, and individual collection and use of data.⁶ At a national level, the State Council and the National Health Commission were the key actors, hoovering up epidemiological big data mined from hospitals and self-reporting patients and collating this along with travel movements recorded by public transport providers and geolocation tracking from mobile phones. At the level of the individual, people across the nation downloaded quick-response health codes that were developed to algorithmically determine the individual
level of COVID-19 infection risk. That level of risk was then converted into a colour-coded QR code, a Health Code 健康码, which could be accessed via the popular WeChat or Alipay apps. It was ordered like a traffic-light system: a green code allowed individuals to leave home and access public spaces, such as shopping malls and workplaces, whereas a yellow or red code necessitated self-isolation. Community-level surveillance initiatives included physical checks of individuals’ Health Code data by community volunteers or security staff to ensure each residential neighbourhood could enact up-to-date COVID-19 prevention and control measures.

The COVID-19 crisis accorded community authorities, such as staff at local police stations, an opportunity to patch up gaps in their data on the local population. Residential committee volunteers, together with local police, combed neighbourhoods, ‘leaving no blind-spots, not missing a household, and not leaving out a single person’. These efforts improved governance capacity by enabling local authorities to collect data of unprecedented accuracy on the residents in their area. Likened to a carpet covering every inch of the floor, the comprehensive sweeps of population data and registration of populations in ‘carpet-style management’ 地毯式管理 have enabled local monitoring of all aspects of people’s lives, from the purchase of groceries to employment status.

Smart governance is making government service functions and processes — at least at the local level or where administrative bodies are dealing with non-political matters — increasingly transparent to society. It is also making society increasingly transparent to the Party-State. By design, improving the provision of health, financial, administrative, and other services through cloud-based e-government platforms makes the behaviour of governing authorities relatively less bureaucratic and more transparent to citizens. Premier Li has called for a reduction in the administrative layers between citizens and government services as well as within the government bureaucracy, thus achieving ‘lean government’.

The other side of the transparency coin is the development of a vast array of cloud-based databases and other tools for Internet Plus Monitoring
互联网 + 监管. These online tools are used to detect and punish undesirable social behaviour and to predict and prevent criminal behaviour (perceived or real). Increasingly, they also aim to mould all citizens to the ideological contours of what the Party calls Socialist Core Values. Xi Jinping’s governance capacity-building program is not merely about improving surveillance coverage for the sake of ‘maintaining stability’. Another key function is moral education: connecting the China Dream to programs designed to ‘harmonise’ the values and behaviours of individuals into one non-pluralistic whole. Technology increasingly provides seamless incorporation of moral ideology into governance. The best-known examples of this are social credit systems. These can be described as systems of light behavioural engineering because they impose clear penalties for behaviours deemed ‘untrustworthy’. ‘Trustworthiness’ (诚信, also translated as ‘honesty and credibility’) is also connected to the Party-State’s ideology through the concept of Socialist Core Values. A set of sometimes overlapping initiatives at provincial and city levels and involving Internet businesses, social credit systems monitor legal records, money management, and social behaviours: repayment of debts, criminal and administrative penalties, or charitable giving, among others, would all be included. Each regional authority has its own social credit system that decides what behaviours can negatively or positively impact an individual’s social credit score; a good credit score reflects the financial trustworthiness of a person and can entail some rewards, such as the ability to book a hotel room without a deposit. In more extreme cases, a bad credit score may prevent an ‘untrustworthy’ person from taking a train or plane. Gradually rolled out on a fragmented and experimental basis from 2016, these provisions will soon be nationally standardised. In July 2021, the National Development and Reform Commission published draft provisions titled the ‘National Basic List of Punishment Measures for Untrustworthiness’. The draft provisions propose that social credit scores be applied to individuals and legal persons to create a Public Credit System that will contain eleven types of information, ranging from fulfilment of
credit commitments and policy contracts to evaluations of honesty and trustworthiness, with rewards and punishments to be determined by local authorities.

In short, we find that digital provision of social services works in symbiosis with surveillance technology to build the Party-State’s governance capacity, allowing surveillance creep to occur. We saw this symbiosis at work in the era of COVID-19: ‘carpet-style’ management checks on populations allowed police to monitor the movements of fugitives, floating populations, and migrant workers 流动人口. Governance capacity-building enabled the repurposing of health-oriented administrative surveillance for broader monitoring of target populations.

**Transparency, Stability Maintenance, and Smart Governance**

The Party’s vision — its promise to the people — is to realise the China Dream of National Rejuvenation, constructing a nation whose citizens can enjoy long-lasting moderate prosperity and a harmonious society. For this grand vision to be realised, the Party-State moulds all social and economic activity; it ‘leads everything’ 领导一切. However, to lead everything, the Party needs to see everything. This necessitates a high level of acquiescence from 1.4 billion individuals whose everyday lives under the eyes of surveillance cameras interact with cloud databases and the IoT, and with smart cards for mass transit, online communications, and e-government in their pockets.

Part of the China Dream of a life of prosperity and harmony requires the Party-State to expand government services and improve accountability through greater transparency. But the precondition for living the China Dream’s good life is widespread social stability 社会稳定. Sustaining social stability locks the Party into ever-expanding social governance 社会治理 initiatives to monitor and control the movement and behaviour of citizens.
Old-fashioned Mao-era neighbourhood committees combine with new-fashioned Xi-era technology to form a system of high-level surveillance. These days, the organisational approach to community surveillance is through grid management — a system of urban grassroots governance, creating ‘population units’ for digital supervision and management.  Although different provinces, and even different cities, have varied systems of grid management, each system divides residential areas into grids of around 10,000 square metres (one hectare), although the actual size varies depending on population density or predicted public safety risks. The system also maps the grid area with computerised programs and connects it to local police and public service bureaus. Each grid requires a set of public servants, such as a grid manager, supervisor, police staff member, and firefighter. Last, the grids also employ grid members from the local residential community. The grid management system combines on-the-ground monitoring activities (of visitors, for

Community volunteers ensure COVID-19 control measures are enacted
Source: Ming Xia, Flickr
example) by grid staff and volunteers overlooking the daily lives of households with increasingly automated surveillance technology.

To expand governance capacity to its fullest, the July 2021 joint Central Party Committee and State Council’s ‘Opinion on Strengthening the Modernisation of the Grassroots Governance System and Governance Capabilities’ urges local authorities to strengthen smart governance by integrating the system of grid management with various tools of digital governance. Smart governance enhances the powers of the police, prosecution, and courts, and promises to integrate current systems to develop ‘one-stop’ conflict and dispute-mediation centres. It also promises to improve the delivery of government services more generally. The recent focus of the Party-State on smart governance sets broad guidelines for experimentation with smart surveillance that officials across the country who are keen to impress their superiors are likely to take onboard.

In the words of Chinese political scholar Minxin Pei 裴敏欣, the Central Political and Legal Affairs Commission is the Party’s ‘domestic security taskmaster’. It oversees all law-and-order operations and the adoption of laws across the PRC. According to its Secretary-General, Chen Yixin 陈一新, smart governance is one of the key technological aids of Xi’s governance capacity-building efforts, particularly at the grassroots level.

Chinapeace.gov.cn, which is the Political and Legal Affairs Commission’s website, abounds with examples of smart governance initiatives. For instance:

- In 2021, Chongqing Municipality’s police bureaus adopted a mini-app, available via China’s super-app WeChat, for conflict mediation. The mini-app allows Chongqing residents to report conflicts — anything from community disagreements to land disputes. Lawyers on online duty respond and facilitate conflict resolution via a virtual ‘mediation room’.
• In 2021, Daqing city in Heilongjiang province adopted a grid management system that allows reporting of safety hazards such as broken streetlights to grid staff via an app. Communities receive artificial intelligence–generated ratings based on their safety, and a ‘five-star safe community’ rating can be achieved if grid staff respond to safety issues quickly and efficiently. A low rating would reflect poorly on the performance of government servants seeking promotion.22

• Guizhou rural communities have installed subsidised video surveillance cameras to reduce the number of ‘blind-spots’ in rural video surveillance. Local police officers have subsidised the cost of video surveillance for rural residents, encouraging the building of ‘smart villages’.23

• Prefectures and towns in Guizhou province have started using public security groups on WeChat to respond to community queries and reports. Some of the mentioned incidents include a successful search for a lost child, reporting dangerous behaviour by neighbours with suspected or confirmed mental health issues, hotels reporting guest registration records, and incidents of theft.24

The Central Committee, the State Council, and the National Health Council further embedded smart governance technologies in daily life in 2021 by urging local authorities to expand their use of smart applications to promote community safety and wellbeing. The Central Committee argued that such smart applications could mobilise the masses by creating access to the social governance software and expanding online channels for public participation.25 Such public participation could extend to government services, access to legal and conflict-mediation resources, gathering public opinion, crime prevention, pandemic prevention and control, and caring for elderly people living alone. Various iterations of
such smart applications were created across cities in China according to local community needs and requirements.

**Resolving Some Contradictions, While Making Others Invisible**

The examples above make it clear that smart governance is central to the Party-State’s efforts to detect and punish what it considers undesirable behaviours, to predict and thus prevent criminal behaviour, and to mould social behaviour to better fit the ideals of socialist morality. A key focus of smart governance is the requirement that police, government, and party organisations at the local level combine efforts to ‘resolve social contradictions’ — that is, social conflicts as well as illegal and criminal behaviours.

As all-embracing as the above examples may seem, many communities in China are not yet totally transparent to the Party-State. In September 2021, the Political and Legal Affairs Commission instructed local authorities to address blind-spots in community surveillance through smart technology. Secretary-General Chen also urged them to improve intragovernmental networking and the sharing of social governance information resources. Such directives put pressure on local authorities to hasten the rollout of smart applications for social governance and employ smart monitoring for early detection of hidden security risks at the grassroots level.\(^{26}\)

The Political and Legal Affairs Commission directed local authorities to facilitate the extension of smart platforms as part of the Snow Bright Project 雪亮工程, a surveillance system that taps into a network of smart video cameras with the justification of caring for the safety of the people.\(^ {27}\) In the pilot village of Linyi where Snow Bright was first trialled, the local residents could observe live video surveillance footage on their screens and report any security concerns by a press of a television remote button.\(^ {28}\) In 2021, the project is mostly complete; it now covers both urban and rural...
communities. It aims to monitor, for policing purposes, surveillance blind-
spots, village entrance and exit points, and public and high-traffic areas,
such as urban–rural junctions, areas previously largely excluded from
video surveillance initiatives. Snow Bright builds on the capabilities of
the previously implemented Skynet Project 天网工程 of primarily urban
surveillance that incorporates a network of smart surveillance cameras
that can ‘talk’ to each other through a set of artificial intelligence
capabilities. The network may entail number plate and facial recognition
software that can detect unlawful or ‘high-risk’ behaviours, such as
cars making U-turns at busy intersections or non-residents entering
gated communities.

Year on year, smart governance initiatives further integrate big data
into the mechanics of everyday governance. Known in surveillance studies
as ‘social sorting’, surveillance technologies sort targets of information-
gathering activities — in particular, ‘undesirables’ such as people with
criminal records, or poor populations — into categories via the practices
of monitoring. In the PRC, agencies charged with social governance
tasks — notably, the Public Security Bureau — can apply higher levels
of surveillance and monitoring to ‘target populations’ 重点人口, including fugitives, prostitutes, drug users, and political activists. Once
target populations are identified, their whereabouts, communications,
and behaviours can be tracked and any threats to national security —
real or perceived — can be identified and contained early. Some of the
negative results of social sorting are social marginalisation, isolation, or
even segregation.

As new information technologies allow authorities to detect and
censor anti-regime sentiments early, especially across social media, the
expression of dissent becomes more difficult. In 2021, the changing
landscape of freedoms in Hong Kong illustrated how the system heightens
the costs of dissent through the closure of critical media such as Apple
Daily, strict monitoring of online communications, and the extradition of
anyone who does not obey the rules to the mainland for processing by the
judicial system there. Access to more information on target populations allows for intimate, 24/7 monitoring. The Uyghur and other minorities in Xinjiang region face biometric, communications, and financial surveillance that has been weaponised by predictive analytics. These interconnected surveillance systems can trigger a police response when they identify behaviours labelled as signs of extremism, such as visiting a mosque or planning travel.

To gain a more nuanced understanding of the extent of smart governance in China, it is important to reflect on non–technologically defined blind-spots in policing specifically and social governance more broadly. China’s high-tech governance efforts are still far from perfectly coordinated and managed. Issues of regional interoperability, lack of training, and the unequal or inadequate allocation of resources to implement the ambitious goals of the central government commonly plague new systems of smart governance. Combined, they make current social governance efforts much less totalising than the frequent Orwellian or *Black Mirror* metaphors imply.

**Conclusion: Building a Comprehensive Surveillance State**

Surveillance capabilities increasingly incorporate technological inventions, the effectiveness of which depends on the sociopolitical environment in which they operate. Instead of asking an essentialist question of whether individual digital capabilities in China are inherently bad or good, we have focused here on the symbiotic nature of technological interactions between the state and citizens. Digital tools both improve social welfare and service options for citizens and expand the capacity of the Party-State to ‘lead everything’ by making society transparent to it and thus easier to control.
Grasping the complexity and reach of surveillance technologies in the PRC requires understanding that, in many if not most segments of society, citizens perceive such technologies in a positive light. The technologies help people feel safe or give them better access to government services, which they also make more efficient. China’s home-grown technology talent can boast considerable achievements — creating the world’s first quantum computer and besting Facebook and Google in facial recognition systems, for example. As a result of the latter, the PRC became the first country to introduce a facial recognition payment system for purchasing consumer goods. It has also developed its autonomous (self-driving) vehicle industry at lightning speed.

The Party-State’s governance capacity-building cements in big-data capabilities that permeate all aspects of social life. And in 2021, most citizens overall were not, it seems, pushing back against the march of ubiquitous digital governance. Of course, we would not expect to see large-scale pushback. Not only are severe penalties imposed for going against any aspect of the system, but also China’s surveillance regime is already sophisticated enough in its predictive policing technologies to be able to quickly squash any social unrest.

That includes pandemic-related unrest that other countries have struggled to contain. The pandemic remained under control and, even with harsh lockdowns, overwhelmed hospitals, and censored whistle-blowers, by 2021, many citizens expressed pride and satisfaction in the Party-State’s success in managing the virus. The Chinese economy — despite being buffeted by trade wars, energy crises, and
other problems — has continued to expand, together with a growing appreciation of the role digital surveillance technologies occupy in managing crises.

Deploying big data as the vehicle of national governance capacity-building has also enabled the Party-State to promote a morally defined ‘socialist civilisation’ — for example, making it mandatory for party members and members of key professions to spend time every day on an interactive party-built app for studying Xi Jinping Thought. Big data makes participation compulsory and resistance difficult if not impossible. Therein lies the ‘contradiction’ 矛盾 for the people living under the big-data cloud of smart governance. Big data allows them to live more convenient and efficient lives. But the invisibility of surveillant coercion that is constructed on that convenience obscures the vast reach of the Party-State. That invisibility also makes life more convenient and efficient for those whose job it is to police social behaviour.

With the help of smart technology, police can reduce the need for face-to-face meetings (including police-issued ‘invitations to drink tea’), personal confrontation, and other forms of intervention in real life. Systems of surveillance also have a deterrent effect on crime, traffic violations, and financial offences, such as non-repayment of loans.

But automated surveillance has its risks. Punishment through data surveillance can inflict long-term social harms such as marginalisation and the segregation of some people from the larger society, not only on individuals but also on the very social fabric of trust in the Party-State on which the Party relies for legitimacy. Time will tell whether people will tolerate the continued expansion of such behavioural regulation — or whether smart governance, designed to enhance social stability, may threaten it in the end.