中国观

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CHINA WATCH

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China's Changing Interior: Contemporary Culture, Space, and Opportunity

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INTRODUCTION

Decades of urban and economic development in China's coastal provinces have resulted in an extraordinary socio-economic divide between provinces in the east and west. Furthermore, as evidenced by the Made in China 2025 roadmap, China's national policy to leapfrog into the information era requires bringing the entire country into the 21st century. As a result, Xi Jinping's recent push for western development are efforts to not only lift millions out of rural poverty, but also to bring the entire country into the Digital Age. The following month-long research from May 27, 2018 to June 29, 2018 has taken me from the coastal cities of Shanghai and Hangzhou to the western and developing provinces of Ningxia and Guizhou, where I have taken the opportunity to investigate the changing cultures, spaces, and opportunities that are at play as villages and cities urbanize, modernize, and digitize. In 1974, Spanish sociologist Manuel Castells published The Urban Question, arguing that rural-urban development was not simply a spatial process, but rather a "social production," subject to assemblages of the human production, flows, and ideas underpinning the modern culture. Henri Lefebvre further contends, in The Production of Space, that in addition to physical space, "perceived" and "lived" experiences constitute a "social space"—a Marxian "means of production...of control, and hence of domination, of power." Today, as the world enters into the Digital Age, strategic development of rural and urban spaces must converge with the Digital Space—the production of big data. To what extent is the conjunction of urbanization and new digital technologies transforming space and culture—particularly within China's developing interior, and what issues remain to be seen in bridging the digital divide and developing new social cultures, identities, and lived experiences of such spaces in transformation?

CONTEMPORARY CHINESE SOCIETY

Change has been the norm for China since in the reform and opening up almost forty years ago. How does one characterize the contemporary within the constant flux of Chinese society? With the current technological advances and changing social practices in China, the contemporary must be weighed and situated within particular conditions and challenges of the local. This study attempts to view recent developments in western China

within the frame of shifting contemporary cultures, reworked spaces, and new opportunities for the next generation of Chinese across vastly different spaces of geographic China.

Four Great New Inventions

With just a cursory flit through the modern Chinese city, one can already experience what is commonly referred to as modern China's "Four Great New Inventions." While not strictly Chinese inventions in their origins, the technologies are referred as such because of their omnipresence and even omnipotence in its wholesale integration within contemporary culture and society. In fact, within the course of this research, it has been virtually impossible to avoid the ubiquity and, now, necessity of dealing with these four areas of modern practice.

1.E-Commerce

Throughout the city, food delivery is becoming a staple necessity for time-crunched urban workers. As a result, food delivery smartphone apps like Meituan and Eleme have exploded in popularity and profits. This study spoke briefly with representatives at Eleme to understand their humble beginnings as a college dorm-room take-out distributor and its progress into capturing large swaths of the lucrative Chinese market.

2.Share bicycles

Urban bicycles have also made a comeback in Chinese cities, as an ecosystem of shared bicycle compete for sidewalk space and market share. Representatives from Mobike, one of the earliest and largest shared bicycle companies, tells us that geolocation trackers on the bicycles can create a wealth of data regarding urban commuting and city planning. As concerns over reports of mass bicycle graveyards grow, the company is investing more into maintenance, lifecycle, and recycling of its shared bikes.

3.High-speed rail

The advent of a comprehensive high-speed rail network in China undoubtedly has brought about a revolutionary convenience to tackle China's expansive size and logistical transportation demands. The barriers to inter-city exchange have been significantly reduced, especially with heightened security and characteristic delays in airports. As China proceeds in its quest to create clusters of megacities beyond its already saturated urban areas, high-speed rail will be essential in tying together a close-knit network of urban citizens, ideas, and services.

4.Mobile Payments

Finally, mobile payments have reached a peak level of pervasiveness in

contemporary China. Many Chinese recall that they, "have not used or carried cash in a very long time." Almost all services today provide QR codes (often linked to personal mobile payment accounts) which can be scanned for digital payments via either Alipay or WeChat Pay. Together and simultaneous with the other modern Chinese inventions, society in China has been driven into a unique balance between discursive practices of the old and new.

GO WEST: DEVELOPING THE CHINESE INTERIOR

Since China's "Go West" campaign was announced almost 20 years ago, the western inland provinces have experienced considerable change—most significantly within the past decade. While urban metropolises like Chongqing have reached international acclaim, most of the region continues to develop largely shrouded from international attention. With Xi Jinping's Belt and Road Initiative, western regions are once again thrust into the limelight. As their opportunities soar, so do their ambitions in modernization and "catching up" with the developed east coast—and the world.

NINGXIA: CLOUD SPACE AND IMAGINED PLACE

Rolling desert hills and dry plains make up the arid terrain of China's Hui Autonomous Region of Ningxia, yet the fertile banks of Yellow River continue to fuel the traditionally agricultural economy in the desert oasis. From this loess refuge came the source of a historic dream for an economic revival in one of the pivotal regions in China's Western Development scheme. The China-Europe Freight Rail Line runs straight through the region with a transfer station in Zhongwei, Ningxia. The rail line heads to northwest Xinjiang through Kazakhstan and towards Europe. Currently, freight remains more of a one-way trade, as train carts often come back empty, but the infrastructure remains a significant step to greater development and importance of the region in the future.

Out in the desert, thousands of photovoltaic cells cover the expansive sandy landscapes in Ningxia. Large tracts of solar farms have been bought and sold in past years when solar prospects were high. Today, much of the energy produced from the solar farms are not even used on the grid, since the supply of the more expensive energy has long surpassed the solar quota from the state grid.

Grand plans for Ningxia's future development focus on key industries including agriculture, tourism, and cloud computing. Already, construction of new cloud bases are underway, as Ningxia dreams up imagined places of the future. This report has been based upon field research conducted in one of Ningxia's most ambitious cities, Zhongwei,

a comparatively small prefecture-level city at the border of Gansu province, about three hours southwest of the provincial capital Yinchuan.

DATA SPACE AND CLOUD CREATION

In 2013, Zhongwei's city mayor Wan Xinheng announced a grand plan to transform the city into a hub for cloud computing. His plan involved hosting an army of new energy-efficient natural-cooling data centers for national cloud storage. With the efforts of Mayor Wan, the city of Zhongwei had set out to redefine its status as the cloud computing hub in the geometric center of China. The focus on cloud development in Ningxia, but also throughout China, is an ambitious and important goal, but one which, I argue, is resulting in entire regions of spatial placelessness, epitomized by acres of sterile data centers—many of which remain empty.

Spaces of the Future

A visit to the Western Cloud Base of the Ningxia Zhongguangcun Science and Technology Industrial Park outside of Zhongwei brought us to a 600-acre encampment of simple rectangular data centers—many still under construction. A large monument proudly proclaimed the mission statement, "Creating the lowest-cost, energy-efficient cloud computing infrastructure." On one side were rows of new model data centers that used natural ventilation for self-cooling. Operated by Meiliyun, these energy-efficient data centers were marked with green 360 logo, indicating that it housed data from Chinese tech company Qihoo 360. Down the road, another data center campus operated by China Mobile opted for traditional water-intensive cooling method. On the other side, some distance away, a solitary white building remained unmarked—the new data center for Amazon Web Services (AWS) in China operated by Ningxia Western Cloud Data Technology (NWCD). Within these data centers, it is almost as lifeless as the remote cloud base outside. Asides from housing endless racks of future servers, the data centers have only a few staff to manage and maintain the facilities. Yang Fan, a computer science student at Ningxia University looking for opportunities in the tech industry tells us, "Nobody knows what [Amazon] is doing in Zhongwei." When asked if the cloud computing dream in Zhongwei could bring him any opportunities, he replied, "They don't hire students like us…they are only in need of security guards."

Data Center, Call Center

The Ningxia Zhongguancun Science Technology Park is intended to be a space for a culture of innovation, but the most active tenant remains a call center. Established in the middle of Zhongwei, it is situated in a

quadrangle of sleek new office buildings which conveniently double as the newly-established campus for Ningxia University's Zhongwei branch. The technology park houses a handful of company logos, but the offices themselves remain largely empty—with the exception one particularly busy business. A thriving call center occupying nearly half of a floor was full of hundreds of call operators—all women—busy at work.

In the building next door, students in Ningxia University are hoping to find jobs after graduation in an increasingly competitive environment. "Few companies come to our school for new hires," laments third-year student Zhao Wenyang, "Last year there was one—a call center." Students like Zhao explain that they didn't strive for higher education to work at a call center. Most students continue to hope that they will find lucrative jobs in the large coastal cities. For them, Zhongwei's cloud developments are but an imagined place—remote and out of reach.

GUIZHOU: BIG DATA, BIG AMBITIONS

As Amazon's former chief scientist Andreas Weigend observed, "This century will be defined by the ability to observe people through the data they share." As China hurtles toward the future, big data and big ambitions are at the forefront of government policies. In the notoriously mountainous and poor province of Guizhou, local authorities have taken big data ambitions to a new level.

Big Data Culture

Guizhou, and specifically Guiyang has created a culture around Big Data which has successfully stimulated the local economy and generated a contemporary theme of modernization from top to bottom of the society.

To sum up the sentiments prevalent from the past three years in Guizhou, "Everyone wants to have a part in big data, but many still don't know, what exactly is Big Data?" says a representative at China's Beige big data company. This cultural shift is in part a result of a new form of "Data-ism" adopted by the Chinese government at large. A term coined by David Brooks in 2013, "Data-ism" refers to "certain cultural assumptions—that everything that can be measured should be measured; that data is a transparent and reliable lens that allows us to filter out emotionalism and ideology; that data will help us do remarkable things – like foretell the future." In the context of Guizhou, a new "Big Data-ism" is elevating big data from a technical concept to a cultural phenomenon which encompasses almost all aspects of the development and future of Guizhou. In a newly constructed plaza in Gui'an New District, construction workers rest on public benches which are designed to spell out the words BIG DATA in English. On both sides of Guiyang's South Changling Road,

towering buildings show off "Big Data" in their company names, and signs and monuments proclaiming the centrality of big data have been erected throughout the city.

Since 2014, the Guizhou provincial government has been promoting their newfound passion for big data. The continued investment and focus on growing big data industries has resulted in the establishment of the Global Big Data Exchange (GBDE)—touted as the first international exchange for big data. According to Tang Chen, marketing director for GBDE, proactive policymaking on the part of the provincial government in Guizhou is the reason that many big data technology companies are moving their headquarters to the region. Increasingly, the value of data has led to the need for big data exchange trading. From its inception in 2015, the GBDE now has grown to over 2000 members, with a cumulative transaction amount of over 300 million RMB.

According to official statements, with an average temperature of 15 degrees Celsius, the cool mountain climate of Guizhou can offer immense savings just from reducing energy-intensive cooling in traditional data centers. In conjunction with huge government tax and land incentives, companies are building a number of new data centers needed to store the billions of petabytes in the burgeoning big data industry. The government schemes have already attracted a number of internationally recognized technology companies to open up data centers in the province, including Tencent, Apple, Huawei, etc. Many data centers are tunneled deep inside the mountains of Guizhou to make use of naturally cool temperatures, but also for the security of its most sensitive data.

Guizhou's push to transform from one of China's poorest and under-developed provinces to a cutting edge science and tech hub can be seen through its successful bid to construct the world's largest single-aperture radio telescope, known as FAST (Five hundred meter Aperture Spherical Telescope). Tucked in between mountains to form a naturally parabolic-shaped valley, FAST is both a world-class scientific research center in the global search for extraterrestrial life, as well as a newly created space-themed tourist destination, contributing to the greater cultural shift towards a society attuned to data-driven operations and well-versed in technological lingo.

Transformation in Education

Numerous educational campaigns are underway to engage new generations of children from impoverished towns and mold them into the clockwork pieces of the greater big data industry. According to He Yuan at Beige Data, while big data industries traditionally require a large supply of skilled technical talent for data analysis, even more important is having

a large concentration of usable, "structured" data. According to some estimates, only 5 percent of all digital data is structured, meaning stored in a form that can be efficiently processed by a computer. Guizhou's solution is to employ humans to clean and prepare the data. From scraping to labeling, the needs of the big data industry are creating real economies centered on an ecosystem of data creation.

Already, education is reflecting the changing realities. Big Data Colleges and Technical schools are popping up that pledge to bring young generations of village children into the burgeoning big data industry. Asides from learning the various basic technical skills and background knowledge for working in the data technology industry, many are encouraged to participate in internships or part-time work cleaning big datasets like identifying driving footage or training facial recognition software.

Ms. Zeng, a teacher at Huasheng Technical School's big data department says, "Sometimes the media likes to portray our students as poor children working in miserable conditions cleaning data—but that is not true. Yes, our children are poor, but they are not miserable! They are all happy that they are contributing to the development of greater technologies!"

While salaries and opportunities for advancement remains limited for many of these students, it is undeniable that the introduction of big data and the subsequent transformation of education and society in Guizhou has brought about a comprehensive change in the prospects of the notoriously poor mountainous province.

Despite the government level focus on big data as a provincial priority for high-tech innovation development, most of the high tech jobs remain in the coastal regions, most notably the large developed cities of Beijing, Shanghai, Hangzhou, and Shenzhen. While government incentives have resulted in the establishment of many technology company offices and headquarters in Guiyang, many workspaces remain little more than a shell for marketing purposes or the most basic and laborious upstream data cleaning tasks. Core technical operations and hence innovative engines continue to evade Guizhou, largely due to lack of local talent and opportunities.

CONCLUSIONS

Over a month of field research across China, mainly in the western developing provinces of Ningxia and Guizhou, have revealed a dynamic and fast-changing reality contemporary China. The realities on the ground show a massive progress in terms of infrastructural transformation from rural backwaters to standard Chinese urban space. Companies

working on ambitious but dubious economic feasibility rely and exist upon significant government incentives and orchestrated stimuli, the results of which remain yet to be seen.

Contemporary Cultural Shift

Throughout China and especially in the province of Guizhou, a new culture designed around "Big Data" permeates the entire local society. While the Big Data craze neither inherently beneficial or detrimental, the mismatch of alleged opportunities and realities remain an issue for a significant population still living in abject poverty.

In the case of Ningxia, a small autonomous region outside of Gansu, a desire for relevance motivates a concerted effort to rebrand itself in the mold of other tech-driven and government stimulated modernization, but it largely remains an agriculturally dependent economy engulfed by creeping desert sands. As an ethnic Hui autonomous region where approximately one-third of the population consists of the socio-economically disadvantaged Hui ethnic group, perhaps the region is not utilizing many of its strengths in local ethnic culture to celebrate its cultural distinctiveness.

Spatial Conformity

Urban space in China is quickly converging into urban conformity and non-uniqueness. Many of what used to distinguish localities have been eradicated in favor of "modern" or preferred developments. In many areas within Ningxia, local authorities have gone as far as to remove all signs of Hui Muslim identity, such as Arabic letters or the green crescent symbol, in a bid to whitewash contemporary society to conform with pre-established norms. At the same time in Zhongwei, efforts on creating a tourist destination included an expensive urban makeover last year to install fake facades, traditional rooftops, and historic storefronts all along the streets of the city center. As in the cases of the various high-tech development spaces, technology parks, and futuristic theme parks, new spaces of imagined futures are being designed, labeled, and lauded, but it is still too early to tell if they will bear fruit.

Elusive Opportunities

There is no doubt that recent developments in western China, particularly Ningxia and Guizhou have opened doors to many more opportunities than what could have been afforded in the past. By intentionally attempting to transform traditionally rural and poorer regions of China into ambitiously futuristic tech hubs, local governments are betting that their purported environmental and policy benefits will attract enough initial investment to fuel a sustained economic growth for years to come. Yet opportunities

remain riddled with confusion, insecurities, and doubt for many who remain too far removed from the dreams of cloud-based revolutions.

High paying job opportunities remain in the elusive coastal cities, but an emergent stream of returnees is beginning to arise, particularly in Guizhou. As the urban core grows to mimic the richer coastal cities, developing metropolitans in the west will become increasingly more attractive alternatives to coastal cities where skyrocketing living costs are already higher than most of the developed world.

Contemporary China is a space in transition and the experiences in Ningxia and Guizhou show that western provinces are, even more so, still evolving between realities and imagined places. With strong government incentives and guidance, only time will tell what opportunities the changes today may bring tomorrow for the successful development of the region and for China.

Resurging China's Rural Economy: Roles of Farmer Professional Cooperatives

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Introduction

During 1960s, the Chinese peasants have undergone a drastic change in their land use; arable lands were collectivized and they group-worked in communes to co-produce agricultural goods. A few decades later, in the post-Mao era, the peasants shifted to a family-oriented farming utilizing their given lands from the state. Aiming at an increased production of agricultural goods, the state has attempted to encourage the peasants with incentives; after 1986, the surplus of required production quotas could be kept for the peasants themselves and even more they could sell them to the state at higher prices, or in 2006 that year the state abolished its agricultural tax to assuage the discontent of the peasants. All of these state's means was to hold the peasants themselves accountable and responsible for their production.

However, in recent years of a rapidly changing marketplace dominated by consumers who demand higher quality of agricultural commodities, the peasants appear to have struggled with attaining the right market information regarding what products are to be produced, and how they should be produced. The common route for the peasants in rural China to the market is that they sell their products to small traders and small wholesalers. This mechanism has not yet reached to the level of wholesale; in other words, it limited the peasants' capability to negotiate with bigger enterprises for bigger business opportunities. Additionally, without the accurate market information and trend, the peasants would not be aware of what kind of agricultural goods that could be better sold at higher price; on the top of this, their production is based on a family-scale, this has further prevent them from being competitive in the marketplace.

In order to ameliorate this situation in rural China, the law to promote farmer professional cooperative (FPC) became effective on July 1, 2007. Registered with Industry and Commerce Bureau, FPC can enjoy VTA exemption when exchange was made to their members. Moreover, registered companies' purchase from FPC required 16 % less tax, providing such incentives to the buyers.Governments also subsidize FPC purchasing agricultural machinery, seeds and buds to expand their production-line in larger volume.

It is imperative that we understand the roles of FPC in relation to the

peasants' ability to become more competitive in the market place in better understanding of the impact of FPC on rural China's economy. With questions of how FPC can empower the peasants, the below roles of FPC are quite consequential. These findings are based on the field work in Minqin county Dunhuang county of Gansu Province, in addition to the previous literature. This paper aims to provide comprehensive understanding in the roles of FPC and how it empowers the peasants in rural China.

Legal Person Status

For various forms of business entities as well as enterprises, establishing such for-profit organizations usually demands requirements such as a fixed amount of initial capital invested in the company, or stable revenues after the foundation. Forming a FPC may be the easiest and most accessible for the peasants to obtain a legal status as a form of enterprise; governmental subsidies are promoting such formation even more. The below is the only requirement of forming a FPC in regard to their membership, comprising members:

Although at least 80% of all members should be farmers, the non-farmer membership may include citizens, enterprises, institutions, and social bodies that carry out production and operating activities in direct connection with the business of the FPC. Government agencies are not allowed to become members of an FPC.

Having a legal status for peasants is very crucial in accessing to the marketplace; this status enables them to negotiate business deals with supermarkets, distribution companies, or even directly access to consumers through an e-commerce platform. FPC therefore can be recognized as a business unity which is specialized in supplying an agricultural goods. As mentioned in the previous section, FPC does not pay VTA tax when selling their products to its members, and those registered companies can benefit from 16% less tax by purchasing from FPC. Thus, legal status granted by organizing FPC empowers the peasants to be a legal person who can make legitimate business deals in the marketplace. To compete in current market mechanism, individuals or a family organized non-legal entities that were common in rural China may not be credible enough; again, this legal person status guarantees legal credibility in business deals.

Production in Larger Scale

Previously, each land was allocated to different households; this hinders production in larger scale. Each household was responsible for their own agricultural products that may not guarantee stable production; the method remains still traditional in many villages where they use cows to

flat the land and plant the buds by hands which is very labor-intensive work. Not many peasant family can afford buying agricultural machinery like a bulldozer. One of the advantages and incentives for peasants to join FPC is to be able to use those machinery. It is usually the owner (s) of this FPC possess the necessary machinery to cultivate the lands and increase the production more effectively and efficiently. Bijman and Hu (2011) presents the half of the initiator of 198 FPCs in Hubei province was rural official, broker, or trader comprising 44 % of the entire FPC. This actually is in line with the FPC in Zhabaliang village, Huangqu Township in Dunhuang County, Jiuquan, Gansu Province. The initiator was the secretary of this village who had the most capitals in this village.

In addition to their rich capitals, they have the political power to convince other peasants to join their FPC so that they can flat all the aggregated lands to produce agricultural goods in much larger scale. When each land is used separately, it is less cost-beneficial as opposed to using the land as a whole to cultivate and systematically have a planned agricultural with machinery to ensure higher efficiency. When a larger scale is achieved, FPC is able to sell their products as a wholesale which can lead to business deals with supermarkets in cities where they would like to have a large quantity of products for a better deal.

Market Information and Marketing

It is imperative that any business entities in the marketplace gain the right and accurate information of their demands, or they cannot simply sell well. These dominant initiator of FPC, rural officials, brokers, and traders have their connections and networks to better access the market information as what the demands and wants from consumers are. By having the accurate market information, they can plan their agricultural productions accordingly to the market; some products may be sold at higher prices than others. The access to the market information is accomplished by those initiator's previous connections with businesses in cities and elsewhere. When a producer initiates a FPC, he must have to find someone from outside to join his FPC to have better market information, or no matter how good their products are, they may not sell well because of not right timing or place to sell such products.

As for the marketing function of FPC, the cooperative can be a commission agent who sells on behalf of the peasants and receives a commission; or the cooperative can purchase the products from the members, process their products, and sell the manufactured good in a package; this arrangement lessens the peasants' hassle in coping with end-user market. However, during our field trip, we have also found a cooperative where the peasants are hired and seasonally-contracted to

provide their labor to cultivate the FPC owned lands. According to our interview, they get a monthly pay of 3,600 yuan that does not fluctuate with sales in the market. They have a guaranteed monthly payment in return for their labor. These peasants are usually not the shareholders of FPC, they are not influenced by the marking function of marketing as explained above.

Quality Control

In order to meet the market standards and consumers' higher expectations, a quality control is managed and monitored by the initiator who is clearly aware of the market standards. More specifically, the market trend in cities for fresh agricultural goods refer to less pesticides, less chemicals in fertilizers more organic oriented way of production. One initiator of FPC in Minqin county of Gansu province mentioned that "We provide a specific guideline to ensure the quality of our products sold in the market." This guideline is used to provide information on quality requirements of buyers as well as their demanded food safety.

Bijman and Hu (2011) confirmed the two significant hypotheses on improving quality control in relation to better economic turnout. 1) The more quality-improving services the cooperative offers to its members, the higher the price the members will receive for their products; 2) the more quality-improving services the cooperative offers to its members, the higher the quality standard that the cooperative applies. The correlation of these two findings were statically significant. More interestingly, more government support leads to the application of a higher quality standard. By organizing FPC, the peasants will gain better understanding and notion of market requirements, trends that are inextricably associated with food safety.

Technical Assistance and Agricultural Training

Both the governments and the initiators provide technical assistance as how to use some agricultural machinery, and agricultural trainings on seedlings, sorting, or grading, for instance. It is a great advantage for the peasants with no prior knowledge of these information, skills, or agricultural techniques. FPC in a sense of capacity-building functions as the incubator of modern peasants who are capable of understanding as well as utilizing advanced technologies and agricultural knowledge. The supports from the governments are particularly consequential that the assigned experts can directly provide sessions to the peasants so that direct transfer of knowledge becomes feasible while such trainings provided by the initiator is filtered and secondary-transfer. In the latter case, the direct training is first given to the representative of a FPC so that their knowledge undergoes one filter. Even so, this skill training is essential in

retaining the high standard of quality production in rural China; without it, their products cannot be as competitive as other products from larger supply chain where quality control is strictly regulated in a factory.

Concluding Remarks

A Farmer Professional Cooperative (FPC) is a business entity specifically designed for the peasants in rural China. Provided with much less requirement for its establishment, it grants a legal person status to the marginalized peasants in the marketplace. As opposed to individual or family oriented peasants selling their products, this legal position guarantees a credibility to a great extent that they are able to negotiate better and bigger business deals with supermarkets and distributors in cities. Furthermore, FPC aggregates their members' lands and cultivate them as one big land to produce in larger scale so that they can wholesale in the market to have more stable revenues based on long-term contracts. Initiators of such FPCs have connections and a better access to the market information; they can regulate what needs to be produced and how to be produced. To the end of meeting end-consumers' expectations, FPC can monitor and regulate the quality of their products by providing a specific guideline. During this phase, governmental supports and trainings in enhancing the peasants' skills and knowledge in agriculture is found statically significant in the previous literature. Lastly, not only does FPC provide the above benefits to its members, but they are also new work place in rural China which provides a fixed salary to contracted peasants. Regardless of sales situation, they can get paid on monthly-basis to support the household. Most of contractors we have met during out field trip work for FPC as a secondary source of income while cultivating their own lands remains their primary income. This contributes to the stability of rural economy in China.

Thus, FPC empowers the peasants and resurge the rural economy in China through their roles. The policy-making of local governments in regulating FPCs should take into a serious account of how they subsidize their FPCs. It is statically established that the more services provided to the peasants, the higher quality standard is applied to result in higher revenues. The question is to what extent can the subsidies become a positive effect on its quality production? The decision-making process of these FPCs is exclusively done by the shareholders who are usually the founders and those with most capital investments. Therefore, after achieving a certain economic target of FPC, a fair usage of these funds from governments may be jeopardized by the shareholders. The transparency of accounting for FPC should be implemented at the same time enforced in practice. This may be one of the impending challenges for local officials to lead FPC for more sustainable and healthy development.

Can Western Provinces Steal a March in Big Data Industry? Zhongwei, Guizhou and the Looming National Competition

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1. From Big Data Industry to Tech Hub

The uneven development between the East and the West has been a perennial problem in contemporary China, which was greatly aggravated through decades of economic reform, marketization and globalization. More than a decade ago, the Hu Jintao administration launched the "Western Development" program, whereas the Xi Jinping administration initiated Anti-poverty movement to tackle with the regional disparity. The regional and local state also made great effort to promote economic development by persuading domestic as well as international enterprises to relocate to the West, drawing in private and state investment, building infrastructure and fostering new industries. One of their recent moves turned out to be the engagement with big data industry, which is supposed to be green, high-tech and full of potential. Provinces and cities without strong industrial base or various infrastructures for economic development rushed to capitalize on the new industry, with the hope of stealing a march.

Despite that, the development of big data industry, or eventually, digital economy, is by no means detached from, or independent from the real economy. Rather, it relies on the real economy for data generation as well as its application; it interacts with, elevates and transforms traditional industries. As a result, whether Western provinces can take advantage of late development and steal a considerable march is open to contestation. On one hand, they are definitely less burdened by vested interests, hindering policies and outdated industries and production capacities, thus light-footed in industrial transformation and upgrading; on the other hand, they lacked the technological, industrial and organizational infrastructure that can be laid or consolidated by traditional industries. It's a dilemma. Moreover, there must be a great variety of paths and solutions to cope with the dilemma.

Another important calculation for Western provinces to engage in big data industry is to use it as wedge to transform the previous agricultural region into a rising tech hub. This is even more ambitious. However, as numerous scholars and commentators of innovation and clusters of tech firms have already specified time and again, the key components to success involves but not limited to: government policies, universities,

entrepreneurship, state or corporate R&D centers, venture capital investors and professionals to provide accounting and legal services. These critical elements cannot be constructed overnight.

From May 27th to July 6th , 2018, we visited new technology companies and talked to government officials in Shanghai, Zhongwei (Ningxia), Guizhou and Hangzhou to learn about big data industry in contemporary China. We have witnessed both prospects for development and serious impediment and challenges. The following two parts will mainly focus on Zhongwei and Guizhou, which are considered to be the rising stars in the industry. Their achievements, as well as predicaments for further development and technological upgrading, are typical of Chinese Western cities and regions struggling to engage with new technologies.

2. Zhongwei: Dreaming of a Silicon Desert

Zhongwei, a military base at the frontier of Ming and Qing Empire, an oasis surrounded by desert and a city only restructured as prefecture-level municipality in Ningxia Hui Autonomous Region since 2004, are recently touted as a rising star in Chinese big Data industry, or the arguable Chinese silicon desert in the near future. Indeed, officials from Zhongwei set Phoenix, Arizona as an example, which is also a desert city turning into the magnet to tech entities. At first sight, the first five years' achievement in Zhongwei is nothing less than impressive.

As early as 2013, Amazon Web Service (AWS) announced its ambitious business plan to construct its cloud computing base in Zhongwei, which were put into use since late 2016, after a temporary setback in policy change. At the present stage, AWS claimed to invest 1.5 billion US dollars into the project. The author spotted that at least one of the three planned data centers in Western Cloud Base has already been completed, which is said to hold 12000 servers. In the same cloud base located in the semi-desert area around Northeast of Zhongwei city, several other domestic cloud service providers made even greater progress. Meili Cloud （美利云）, a joint-venture between State-owned Chengtong Group and private investor Cybernaut, has now completed the first stage of its ambitious project, which contained two huge plants of servers: one rented to Qihoo 360 Technology Company, another for Meituan, Jingdong and possibly other new technology companies. The total investment will swell up to 6.2 billion RMB in years. Another telecom Giant, China Mobile, also joined the game by investing 3 billion RMB (will soon grow to 13 billion) to launch its own nodal data center for both its own use and for renting. A number of companies in Beijing, as well as the National Information Center, have already signed contact with the newly-established data center. Besides, China Unicom and Satelliteherd, a private company

providing satellite data services, will also accomplish their own data center within a year or two.

The tremendous development of big data industry in Zhongwei is well-founded politically and economically. On one hand, the political endeavors of the Peking University trained computer scientist and Mayor of Zhongwei, Dr. Wan, Xinheng, played the critical role in negotiating with the above enterprises as well as governments and departments of various levels. He succeeded in mobilizing and reconfiguring the existing political resources to support the nascent industry, for instance, the planning of cloud base and Zhongguancun industrial park, the establishment of a bureau specializing in managing and providing services for big data industry, etc.. He also personally talked enterprises into relocating into Zhongwei, from international corporations such as Amazon to small start-ups such as a drone company.

On the other hand, Zhongwei, much like Phoenix, is natured endowed. The unique desert and semi-desert climate efficiently dried up the air and kept the average temperature year round at 8.8 degree centigrade. It then made a natural wind system to cool down the servers possible, besides the more frequent water cooling system. The abundance of energy and the popularization of clean energy facilities, plus the local government subsidy, lowered the price for electricity to 0.36 Yuan RMB per kilowatt hour, almost the most competitive nationwide. Besides, the lack of seismic disasters brought about stability and security in data storage, while the ideal geographic location made the layout of internet infrastructure more cost-efficient.

Impressive as it is, Zhongwei is by no means immune to the rising national competition for cloud service industry. The big data industry, a promising, seemingly high-tech, high value-added and environment-friendly industry, and most importantly, an indispensable piece of puzzle of state industrial policies for the next several decades, will and to some extent has already triggered a national competition. Besides the traditional metropolitan areas and early birds like Guizhou, Inner Mongolia Autonomous Region, Zhangbei and Langfang (Hebei province), Chongqing and Shenyang (Liaoning province) paralleled or even preceded Zhongwei to invest in colossal cloud computing bases. While Zhongwei dreamed to "overtake others at the curve", its competitors, with or without similar natural endowment, aimed for even higher goals.

Although big data storage is by nature multi-sited for security reasons and will grow at tremendous pace under national, regional and local subsidies, it's possible that the industry will be saturated at certain point. Even before the cloud service providers recover their sinking costs, the price

war will bring down small and middle-scaled enterprises in the industry, as well as some regional cloud bases. Perhaps the only way to actually overtake others at the curve, is to upgrade along the value chain, i.e., from data storage to data structuration, data mining, consulting and value-added services of various kinds. Indeed, the data industry involves a much longer and fortunately more decentralized value chain than others, along which new values can be created. Although colossal, all-round enterprises such as Alibaba may have strong hold of a considerable share of the business, much like other industries, there are always unexpected, flexible niches for various players and agents, such as small specializers, middle-range data dealers, etc..

However, Zhongwei may still have a long way to go to move up the value chain of big data industry and to reconstruct itself into a cluster of high-end, high-valued enterprises. Zhongwei's struggles in fostering the aforementioned critical elements may offer lessons to China's broader industrial policy.

First, Zhongwei has instituted a set of policies to attract leading cloud computing firms and startups alike, including one that offers rent-free office space and land for data centers for the first three years. The city also tempts businesses with the offer of potential state investment or joint-venture status, as well as good loan terms and interest rates. Yet it is not the only city to offer a favorable policy climate. The southwestern province of Guizhou has made big data a provincial priority, and has fully mobilized its provincial, municipal, and local administrative bodies in support of the industry.

In terms of universities, Zhongwei lags behind tech hubs like Phoenix, which is home to Arizona State University, and the eastern Chinese city of Hangzhou, which boasts the highly ranked Zhejiang University. Zhongwei is home only to the Zhongwei campus of Ningxia University, which opened in 2015. Originally designed as a joint project between the Chinese and Saudi Arabian governments, the project was halted midway. Currently, the campus houses about 700 undergraduate students, and does not have any research labs, graduate programs, or outlets for enterprise collaboration.

As for a climate of entrepreneurship, the local entrepreneurial ecosystem is still limited to cloud computing companies. Although space in the Zhongguancun Tech Park went quickly, many enterprises chose not to run their businesses there. Those that did were primarily attracted by the region's low labor costs. For instance, one high-profile tenant is actually a labor-intensive call service provider.

This has been compounded by the utter lack of national- or provincial-

level R&D centers or research programs in the area. A look at Taiwan shows the importance of such centers. Although the island's semi-conductor industry was founded by private corporations in the late 1970s, the core technology was developed in state-funded research institutions. State-backed R&D centers have helped develop the technological infrastructure underlying many cutting-edge industries — especially in developing nations. And while corporate-led research institutes can help fill this void, companies like Amazon Web Services have largely chosen to locate their research teams in Beijing, rather than Zhongwei, since it is easier to recruit talent there.

Zhongwei also suffers from shortages of venture capital and white-collar professionals, though the latter problem may resolve itself as the cost of living in China's largest cities continues to rise, forcing professionals to relocate.

3. Guizhou: Full Mobilization for Big Data

Historically, Guizhou is a multi-ethnic, semi-autonomous terrain ruled by Chieftains at the verge of Chinese civilization. Since its formal institutionalization as a "province" from Ming Dynasty's state-building movement, it nevertheless suffered from economic backwardness and persistent poverty. It was elevated as one of the priorities in the "Western Development Strategy" by Hu Jintao Administration more than a decade ago, but around 2015, there was still 6 million population under poverty, while four traditional industries, i.e., coal, electricity, tobacco and wine-making, contributed more than 60% of the provincial GDP. In the same year, a bold strategy to develop big data industry was passed by the Provincial Party Committee, following by the central policy that advanced Guizhou as the first "National Comprehensive Experiment District for Big Data".

Only three years later, if you wonder along Changling Rd. which sprawls over three administrative districts of Guiyang (capital of Guizhou Province), for a minute you might mistake it as Pudong District of Shanghai. You will probably be dazzled by the endless glass curtain walls, beautiful walkways, professional-like pedestrians and fancy slogans for tech companies. Statistics-wise, Guizhou was ranked the first in digital economy growth rate, which hit 37.2% in 2017, far exceeding the national average of 20.3%. In the Guiyang Hi-Tech Zone (along the fore-mentioned Changling Rd.) alone and by the first half of 2018, 16 thousands tech companies were registered, 155 research entities were instituted, 49 tech incubators were founded, whereas 85 thousands or so talents were drawn from everywhere around the country. Guiyang, however, is only one of the planned Technopoles in Guizhou province,

paralleling the national-level Gui'an New District and other county-level tech parks, such as Bainiaohe Digital Park in Huishui County.

As the author mentioned elsewhere, big data industry in China will probably be caught up in the chase-to-the-bottom competition, if more and more regions and cities entered the game. A number of them lack the constellation of favorable policies, universities, R&D institutions, entrepreneurship, venture capital and professional pool to elevate them into vibrant tech hubs with substantive economic growth and technology upgrading. In contrast, Guizhou seems to steal a march in at least two fronts.

Policy comes first. Guizhou took lead in offering tax deduction, free office space rental, talent reward programs and a whole set of policy toolkit to draw, subsidize and nurture high tech enterprises. Although policy learning soon gave rise to the dissemination of equivalent policies and subsidies nationwide, the stolen march made Guizhou a pacemaker in the national game. As the first state-endorsed site for experimenting with big-data industrial policies, Guizhou had succeeded in attracting dozens of globally renowned tech companies such as Alibaba, Intel, HP, Huawei, Baidu, etc.. Numerous start-ups mushroomed due to the clustering effect, hammering the initial contour of a regional tech hub into shape. Although another seven districts around China were soon exalted as the second patch of Experimenting Districts for Big Data, Guizhou still took considerable advantage.

Besides, a number of managers we came across during the fieldtrip attributed the success of Guizhou to government's engagement with big data from top-down, and inside out. "Big data" development program was mobilized as a wedge to integrate previously isolated data and service systems developed by various departments as well as different levels of government separately. The plan was to move, reconfigure and integrate all the provincial and municipal government information platforms and application systems to "Guizhou-Cloud Big Data", a newly casted cloud platform invested by Big Data Development and Management Bureau of Guizhou. An integrated government platform, plus a state-owned enterprise specializing in cloud computing service, not only brought tremendous demonstration effect, but also created plenty of niches for emerging enterprises. In other words, the Guizhou government has heavily invested and deeply embedded in the bid data program. During this process, accountability and transparency is also on the rise.

Second, in less than 3 years, a number of "unicorn" enterprises did emerge and grow, which had greatly vitalized the market. "Food Safety Cloud", a joint-venture among Guizhou Academy of Testing and Analysis, Beijing

Institute of Nutritional Resources and two private testing companies, is ambitious enough to build a generalized and digitalized platform for food testing and analysis, striving to be a credible third party between state and consumers. As China has been continuously plagued by scandals of food safety during the past decade, it's a timely innovation to provide reliable, inexpensive food testing. Last year, they had extended business into "food production tracing", a service to record, integrate and present every step of the production process of fresh produce. The consumers in the supermarket can access the information by simply scanning QR code with their cellphone. Although so far only 20 or so food testing institutes out of 2000 nationwide joined their platform, and only one supermarket chain purchased their service, they had drawn 23-million RMB venture capital in 2017, in addition to the tens of millions already in place.

Another example is the Global Big Data Exchange (GBDEx) in Guiyang. Founded by Guiyang SASAC as early as 2014, the Exchange offers online and offline matching-making in data transactions. Presently, they have built a transaction system independently, recruited 225 premium members, and developed 4000 categories of tradable data products. Although the turnover for the first three years hit a moderate 300 million RMB, and the prices for data has generally based on bilateral negotiation, the Exchange has greatly facilitated the construction and deepening of big data market, as well as price-formation. It has inspired numerous data exchanges and equivalent enterprises as well as platforms around China, such as Shanghai Data Exchange Corp., Zhejiang Big Data Exchange Center, etc.. Besides, it has also trained a community of more than 100 professionals, who later worked in other exchanges. In other words, the Exchange has not only (at least attempt to) built a market of big data, but also a market of professionals.

Although the development may strike most of the readers as impressive, it is also highly uneven. As some enterprises consolidated their research and organizational capacity, others relocated to Guizhou to take advantage of favorable policies and lower cost. For instance, Beige (the Chinese translation for Big Data), a nationally renowned data analyzer and platform architect based in Shanghai, set up a spacious branch in the Gui'an New District since 2016, which largely focused on data cleaning, a labor-intensive procedure taking on by skilled and semi-skilled local digital workers, while the tech and sales departments are located in Shanghai, Beijing and Shenzhen, to be close to talent pools and potential customers. Similarly, another prestigious company, China Data Pay, provides data mining, data integration and related services for state-owned enterprises, to "bring out the value of big data", and to "realize the value of state asset". It did place one of its sales departments in Gui'an, but the

majority of its technology team was located in Shanghai and Hangzhou. Even the fore-mentioned Food Safety Cloud and GBDEx located part of their tech team elsewhere.

4. Observations and Implications

Taking together, the two cases are instructive in several important fronts.

1) First, as a number of scholars such as Qu, Wanwen(瞿 宛 文) insightfully pointed out, the contemporary Chinese national industrial policies are constantly compromised by its multi-layered, oftentimes inconsistent state structure, which unexpectedly encouraged local competition for industrial development, financial and human resources, enterprises and finally, GDP growth, state revenue growth and consequently political opportunities for local officials. The steel industry, the automobile industry, and the more recent photovoltaic manufacturing industry were telling examples: they all began with state planning and regional focus, but nevertheless ended up in fierce national competition and over-production.

The big data industry, especially the data storage industry, might be soon caught up in the looming national competition under the same logic. So far, the second patch of cities and regions are acknowledged as the "experimenting districts for big data", following Zhongwei and Guizhou. They are: Inner-Mongolia Autonomous Region, Henan Province, Liangjiang New District of Chongqing, Shenyang (Liaoning Province), Langfang and Zhangbei of Hebei Province, and Shanghai, Zhujiang Delta region, as well as Bejing-Tianjing-Hebei region. Except the metropolitan regions which are far superior in technology capacity, the rest will soon or are already copying Zhongwei and Guizhou's practices. As they largely lacked sufficient talents and a professional pool to upgrade along the value chain, they probably will focus on the lower end of the industry: i.e., data storage, data cleaning, coding and labeling. The former relied on natural environment and the availability of land, while the latter relied on the availability of labor.

2) Second, the two cases also hark back to the heated debate between Lin Yifu and Zhang Weiying in recent years. They are two of the most prestigious economists in contemporary China. While Zhang favors market force and hence contended "comparative advantage" cannot be constructed from scratch, Lin acknowledges the role of government in fostering comparative advantages and even new industries through effective industrial policies. At first sight, the two cases seem to support the latter line of argument. The reality is more complicated. The enterprises can rely on government to offer office space and tax deduction, but they cannot pin its hopes heavily on government to build them a tech

team.

At the present stage, the comparative advantages of Western provinces seem to rest on low-end labor force and natural resources. Enterprises that built their major business on these two forms of resources are much more consolidated and far deeply rooted than others boasting of high-tech and fancy businesses. As specified before, a considerable number of tech companies in both Zhongwei and Huizhou actually located their tech team elsewhere, usually in Beijing, Shanghai Hangzhou and Shenzhen. The prevalent detachment between the low-end and the high-end work tells that the two regions we visited are far from rising tech hubs. Although there are a number of exceptions, enterprises registered and paid tax there merely to take advantage of free office renting, tax cut and other favorable policies. The state's role is indispensable; but it takes much longer for enterprises and the two regions (possibly other Western provinces) to build comparative advantages in core technology and their own talent pool.

农民需要什么样的合作社？

廖越 伊利诺伊大学香槟分校人类学博士生

　　二十世纪 90 年代以后，中国农业再度出现了合作化的趋势。尤其是 2006 年《中华人民共和国农民专业合作社法》颁布实施以后，各种形式的农民合作组织在全国各地蓬勃发展起来。区别于毛泽东时代"政社合一"的人民公社组织，这种新型的合作组织是以市场为导向的，其主要的职能是为农户提供生产、销售、技术、交通运输等一体化的服务，因此被官方命名为"专业合作社"。世界银行 2006 年发布的一份报告（《中国农民技术专业协会：回顾与政策建议》）显示，2003 年，只有 7% 的中国村庄拥有实际运行的专业协会，大约仅有 2% 的中国农民是这些专业协会的会员。农民专业合作社法实施十周年以后，农民专业合作社已成为中国重要的新型农业经营主体。来自工商总局和农业部的官方数据显示，2017 年，中国农民专业合作社已经发展到 193.3 万家，入社农户超过 1 亿户，平均每个村有 3 家合作社，入社农户占全国农户的 46.8%。农民合作组织发展速度如此之快，以至于许多学者将其称为是当代中国又一次"合作化运动"。

　　经历了毛泽东时代失败的农业合作化运动，"合作社"在中国一直是"大锅饭"或"平均主义"的代名词。然而短短十年以后，中国农业又再度出现了合作化的趋势。这一戏剧性的转变不能不引起我们的注意。当代中国蓬勃发展合作化运动对中国农业发展和农民的日常生活有何意义？中国延续数千年的小农经济在新一轮合作化运动中正在发生何种变化？接下来，本文通过山东省兰陵县的三个合作社个案来探讨上述问题。

　　兰陵县位于山东省南部，全县总面积 1724 平方公里，耕地面积 161.7 万亩，人口 136.4 万人（2016 年）。兰陵县是全国设施蔬菜生产大县，被誉为"中国蔬菜之乡"，常年蔬菜种植面积 110 万亩。2016 年，全县蔬菜收获面积 112 万亩，总产量 450 万吨，总产值 86 亿元。鸿强蔬菜产销专业合作社、佰盟种植专业合作社、金亿发种植专业合作社是兰陵县三个大型的农业合作社，社员均在 800 人以上。这三个合作社成立的主体以及组织和运营方式均有所不同。

（一）案例一：兰陵县鸿强蔬菜产销专业合作社

　　鸿强蔬菜产销专业合作社由"农二代"郭军见创办。郭军见家里从 1985 年开始种植大棚蔬菜，后来转型开农资销售店。郭军见本科毕业以后在外开过铁矿，搞过房地产开发，也曾在银行上过班。

积累了一定资本以后，他在 2010 年回到家乡注册了鸿强合作社。郭军见创办合作社主要有三个方面的原因：一是个人对农业的一种情怀，希望通过自己的努力改变小农经营这种非常落后的生产方式；二是他经过市场考察发现兰陵是个蔬菜种植大县但却没有正规的种苗培育企业，农民普遍存在买苗难、买苗贵的问题；三是当时的县委书记对他的期许，希望他能通过创办合作社带动周边的农民共同致富。

鸿强合作社投入 3000 余万元（均为郭军见个人的自有资金），建立了两个面积为 1200 亩左右直营基地，主要用作种苗繁育，兼营种菜。基地内的种苗和蔬菜都是按照订单来种植，并由合作社雇佣专业化的技术人员和生产人员进行管理。合作社现有技术人员 15 名，长期雇佣的生产人员 40 名，季节性雇工 150 名。

鸿强合作社为社员提供种苗、农资、种植技术培训、销售以及贷款担保等服务，但前提是社员必须采用合作社制定的标准化的种植和管理模式。农民蔬菜种植的收益均归自己所有，合作社只在种苗、农资等环节获取一定利润。合作社还在当地每个村设立推广站，将当地一些种菜的农户发展成为合作社的社员，并雇佣他们宣传和推广鸿强合作社的种苗，以及联系农产品的回收。

（二）案例二：兰陵县佰盟种植专业合作社

佰盟种植专业合作社由徐皇路村村集体创办，法人为村支书徐振东。徐振东 1998 年前往上海做蔬菜批发和配送生意。几年以后，生意逐渐做大，在上海成立了三家净菜加工配送公司。2008 年，兰陵县成立在沪流动党委。生意做得很大的徐振东被发展成为共产党员，并在 2011 年由上海流动党委推荐回家乡当村支书带领村民共同富裕。

由于自己有蔬菜销售的渠道，徐振东决定在村里成立合作社进行土地流转，发展设施蔬菜产业。佰盟专业合作社的定位是一个非盈利性质的服务平台，为社员提供从土地流转、基础设施建设、蔬菜种植、农残监测、销售和贷款担保等一体化服务。合作社以 800 元 / 亩的价格（当地承包给个人的价格是 300-400 元 / 亩）从村民手中将土地流转过来，然后对土地进行重新规划，配套水电管网等基础设施建设。想要种地的村民需向合作社支付地租（900 元 / 亩），然后按照统一的标准建设温室大棚。在生产方面，给予农户足够的自主性，蔬菜的种植管理均有农民自己负责，自负盈亏，所有收入均归农民自己所有。同时，合作社在产品质量方面严格进行把控，将农户结成对子，互相监督是否有使用高毒农药的行为。

佰盟合作社是上海市蔬菜的外延基地，农民生产的产品符合要求的可以贴上"苍山蔬菜"的品牌，由合作社统一进行销售。其他不符合要求的产品由农民自己在本地市场销售。

（三）案例三：兰陵县金亿发种植专业合作社

金亿发种植专业合作社于 2013 年由大蒜批发、加工和出口商金亿发食品有限公司创办，法人为公司老板宋加才。创办金亿发合作社的原因一是打通大蒜种植、批发、加工和销售产业链，便于公司把控质量和收购农产品；二是大蒜和蒜薹的市场价格波动比较大，为保障蒜农的利益，提高抵御市场风险的能力，兰陵县政府鼓励大蒜批发和加工企业和蒜农一起合作，成立大蒜种植协会或专业合作社，对大蒜生产进行技术指导和农资、销售等服务。

相对其他两家合作社，金亿发合作社在管理上最为松散。蒜农加入合作社土地以后，仍然保持原有的种植方式。社员可以从合作社以购买到质量可靠的农资，并将大蒜和蒜薹产品直接出售给合作社。合作社的收益主要来自农资生产厂家给的销售提成。

从以上三个合作社组织个案的描述，我们可以得出以下结论：

第一，农民专业合作社的创办者通常是掌握一定经济实力的城市资本家或乡村经济能人。鸿强和金亿发两个合作社均由农业资本家投资注册，而佰盟合作社的创办人村支书徐振东同样也是一位成功的企业家。

第二，政府对合作社的政策支持是农民专业合作社成立的重要原因。尽管鸿强、佰盟和金亿发三个合作社的创办动机各有不同，但在其背后都能看到地方政府的影响。比如，郭军见创办鸿强合作社时受到了县委书记的鼓励；佰盟合作社的创办者徐振东由上海流动党委推荐回家乡担任村党支部书记；金亿发合作社则是在政府鼓励蒜农、蒜企合作提高蒜农抵御市场风险能力的背景下创立的。

第三，合作社的组织方式与农业生产的环节有密切的关联。佰盟和金亿发两个合作社都是蔬菜种植类合作社，而蔬菜种子属劳动力、资本双密集型产业，除了浇水、施肥基本实现机械化以外，其他种植、植保、采摘等环节几乎全靠手工劳动。在这种情况下，小家庭农场相比需要大量雇工的大型农场具有非常大的优势。因此种植类的合作社几乎全部都保留了小家庭农场的种植模式。而在种苗培育环节，机械化程度已经很高，需要雇佣的劳动力远少于蔬菜种植，因此鸿强合作社采用了公司直营的方式进行管理。

第四，同样是叫"农民专业合作社"，鸿强、佰盟和金亿发三个合作社内部的生产关系存在很大的差异。其中，鸿强合作社更接近于一个大型农业资本主义企业和大量小规模农户的联合体。合作社的核心是郭军见个人投资建设的直营基地，完全依靠雇佣劳动力进行管理。合作社内数量庞大的其他农户（社员）既是合作社种苗基地的消费者，也是合作社蔬菜产品的提供者。佰盟合作社更接近于一个农业纵向一体化服务平台，合作社将土地从农户手中流转过来进行规划平整以后再出租给愿意种地的农户进行管理，农户自负盈亏，合作社为农户联系销售渠道。金亿发合作社则更接近于一个

农产品收购商，合作社与农户之间以及合作社内农户与农户之间没有深入的合作关系。合作社虽然为农户提供农资和销售服务，但农户与合作社双方并没有签订任何契约。农户可以选择使用或不使用合作社提供的农资，也可以选择将产品出售或者不出售给合作社。因此，金亿发合作社的"合作"从本质上来说仅仅是小农户与中间商的一个松散的联合体。

鸿强、佰盟和金亿发三个不同组织形式的合作社都在某种程度上契合了农村市场化进程中分散独立经营的小农的合作意愿和需求。尽管在参与合作社的过程中，农民都在不同程度上得到获益。但从农户的反映来看，鸿强和佰盟合作社的社员明显对合作社有较高的满意度和认同度。鸿强合作社的标准化种植和管理模式是社员们最满意的部分，使用这种方式生产出来的农产品品质更好，售价通常比一般的产品高 2-3 毛钱左右。而佰盟专业合作社的社员则表示，合作社为社员提供的从土地流转、基础设施建设、蔬菜种植、农残监测、销售和贷款担保等一体化服务，有效减少了生产成本。

从以上三个合作社的个案我们也可以看出尽管中国农业资本化的程度在不断加深，但在某些领域——比如难以实现机械化的设施蔬菜种植领域——小规模家庭农场相比规模化资本主义农场仍然具有成本上的优势。这使得种植业规模化经营主体仍然选择保留小农经济的生产方式。由于小农经济的这种韧性，农民专业合作社不一定能够实现农业的规模化经营。事实上，农民专业合作社的定位也不应当是消灭小农经济，实现规模化经营，而应当定位为农户提供纵向一体化服务的平台。只有这样，中国数量庞大的小农才能避免被大户以及农业资本家剥削的局面，真正维护自身的自主性。

回到本文题目所提的问题：农民究竟需要什么样的合作社？就以上三种合作形式来看，农民最需要的无疑是佰盟这种为农户提供纵向一体化服务的合作社平台。尽管在资本、技术高度密集的育苗环节，规模化资本主义企业式的合作社（如鸿强合作社）更容易达到规模效应，但在这种模式中，合作社内小农户与大户之间的话语权严重不对等，小农户不可避免地受到大户在农资、销售等环节的剥削。而佰盟合作社定位为非盈利性质的服务平台，为愿意承包土地种植的小农户提供一体化的服务。农户虽然要向合作社缴纳地租，但合作社并未从中获取超额利润。农户在合作社内具有充分的自主权，但同时又受到消费市场对产品品质要求的引导和制约，因而能够主动地进行自我监管，生产符合市场需求的农产品。

Rural Development & Digital Wallets:
An Introductory Comparison of China and India's E-commerce Environments

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1.0 INTRODUCTION

The rise of e-commerce business and technology around the world has disrupted the labour market, traditional rural sectors such as agriculture and also access to employment and financial participation in rural areas. China serves as an excellent example for how successful financial inclusion policies in rural areas, access to internet and digital technology, and Public-Private partnerships have fuelled a new era of economic growth through e-commerce. Other developing countries such as India, also face difficulties where technological advancement has disrupted labour markets, and there is a lack of local skilled labour to fill the new tech-focused economies.

As the two countries boasting the largest populations in the world, as well as the highest number of mobile subscriptions and internet users in the world, there is a lot to be gained by comparing the rural development and e-commerce development models and progresses in both China and India. China has emerged as the leader in e-commerce and has successfully been on a campaign to develop it's rural areas by encouraging people to open online stores and satisfy the huge consumer demand in China, as well as abroad. In India, grassroots organisations have also been on a quest to improve the social and financial inclusion of marginalised populations living in India's rural regions, improve their access to internet and encourage them to engage in e-commerce.

Foreign investors and businesses are keeping a keen eye on India's economic growth and e-commerce ecosystem. With the country's population projected to overtake China's in the next ten years, India will then boast the world's largest working population (Bloomberg, 2017). As well as this, China will have to deal with the fallout and issues of an ageing population, while the majority of India's working population will be made up of people under the age of thirty-five in the next decade. Factors such as these, could significantly change the trajectory and growth of e-commerce in China, where young consumers are driving growth and the majority of e-commerce vendors in rural China are from older generations. More importantly, for the future, it is important to assess how different political factors, consumer behaviours and relevant infrastructure

has shaped e-commerce growth in both of these countries. This paper will give a brief comparison of government policy regarding e-commerce and rural development in India and China, assess the differences in consumer behaviour and trends, and finally, analyse the different development levels of key infrastructure that is key to e-commerce development, such as internet access and connectivity, financial inclusion and physical infrastructure. As developing countries come to terms with an increasingly digital world and questions around poverty reduction and rural development, looking to examples of growth models in other nations will become vital to assessing approaches that can be implemented in different cultural and economic environments.

2.0 BACKGROUND

The advent of e-commerce is a rising trend globally, as the world has become more connected and purchases have increasingly moved from offline to online with the growth of the digital economy. E-commerce presents a variety of opportunities for developing and developed countries alike, to transform their rural communities and tackle modern problems such as: rural-urban migration; gaps in skilled labour in rural areas; economic inclusion in rural areas; issues around the sustainability of traditional agriculture.

In India, the landscape is quite different. While there is still a huge trend of rural-urban migration, the economic disparity between rural and urban is quite severe, with rural and remote areas lacking even basic infrastructure and social inclusion in some cases. Most of India's young skilled workers, like China, are focused in urban centres. Further to this, the rate of rural and national poverty in India is far higher than that of China (ADB, 2018).

Since 2014, there has seen a steady increase of urban skilled young people, workers and skilled-labour to their hometowns in rural areas to engage in the e-commerce industry (Liu, 2018). This provides an incredible opportunity to reduce urban populations, pollution, stress of city development and economies, if the e-commerce industry in rural areas reduces the rural-urban migration trend and sees a change of rural labour transfer with skilled labour returning to these areas. Where there is a lack of skilled tech and e-commerce savvy labour in rural areas engaged in e-commerce, there needs to be appropriate access to and affordable skills training programs for the local population to participate in. China's example of reverse migration of skilled labour and entrepreneurs to rural areas could provide a model for other developing countries who are currently struggling under the adverse labour market, economic and financial inclusion effects of rapid rural-urban migration.

3.0 E-COMMERCE POLICY IN CHINA & INDIA

Being the largest e-commerce market in the world, China's growth in this area and subsequent policy was driven by a number of factors. Firstly, an opportunity to take advantage of rising online consumer culture in China and continue to drive economic growth, and secondly, as a solution to tackle poor rural development, unemployment and the burgeoning populations of cities. China's issues with mass rural-urban migration have resulted in overpopulated cities, a rise of informal housing, huge migrant worker populations, issues with urban development and high rates of pollution and unemployment (Melo & Ames, 2016: p2). For decades, rural Chinese workers have flocked to the cities to find employment, leaving their families behind in their hometowns and experiencing poor livelihoods in China's huge and fast-paced urban areas (Farrar, 2016). The number of migrant workers in China's urban areas has seen a continuous decline from 2011-2016, with an emerging trend of people returning to their hometowns to find new areas of employment (Liao, 2018).

The rise of e-commerce businesses has meant that populations of rural areas can now achieve financial success, gain employment and access to finance in their home towns rather than relocating to larger metropolitan areas. This has resulted in a new trend of reverse rural-urban migration that is seeing people born in rural areas move back to their hometowns from the big city to work and transform their traditional family businesses in to e-commerce empires (IIAS, 2017). Consequently, rural e-commerce has become one the Chinese government's major policies for rural development and revitalization. The government cooperates with e-commerce platforms such as Alibaba and JingDong to deliver free training to rural areas, service centres and subsidised land and rent to facilitate rural e-commerce businesses.

As Goyal and Goyal (2016) argue, with India's e-commerce market being far less developed than China's, the level of policy support for rural e-commerce is also not as mature. It was only in March 2018, that the Indian government discussed putting in place a national e-commerce policy, which would act as a regulatory framework and map the physical and digital infrastructure, taxation policy, server locations, intellectual property rights and more (Bhunia, 2018). In contrast to China, much of the development on rural e-commerce in India at the moment stems from grassroots organisations and social entrepreneurs, rather than government and e-commerce platforms. As Choudury and Fernando (2017) argue, social enterprise in India is acting much faster to develop rural areas and link to e-commerce than other actors.

4.0 CONSUMER BEHAVIOUR IN CHINA & INDIA

A key factor in the development and style of e-commerce models in India and China, are the characteristics of their consumers. Against the backdrop of a growing middle class and increased wealth, the power of Chinese consumers has shaped the growth of the e-commerce market and will continue to do so in the future. In 2017, online consumption in China continued to grow, with consumption in rural areas contributing to this rise (Couture et. al, 2018). Another characteristic of Chinese consumerism which makes it unique, is that the majority of online shoppers are millennials, young people aged between eighteen and thirty-five years old. Young Chinese consumers have particular preferences and demands, which the e-commerce ecosystem in China has grown to cater for - including a demand for increasingly fast delivery, demand for lower prices and the uptake of new variations of sales such as online-to-offline, and a taste for live-streaming platforms and greater engagement with the seller through social media and interactive platforms.

As such, many e-commerce vendors in rural areas in China have developed their businesses and grown to cater for this huge portion of Chinese consumers. In Shuyang County, in China's Jiangsu Province, the rural e-commerce stores sell mainly garden plants and related products and most shops operate their businesses through online-to-offline marketing and live streaming of products on Taobao or Jingdong's live-streaming platforms.

By contrast, while India's mobile users are active online, the majority still prefer to browse online and then shop in physical stores. Krishna and Chalam (2016) attribute some of this trend to having 'trust' in the brand and product and wanting to inspect the quality. According to Forbes India's e-commerce market brings in less than China, but is forecast to outgrow China's market in the next decade. The question around the model of growth India's market will take will be based on consumer trends and growing foreign investment. Unlike China, whose e-commerce platforms and market are majority homegrown, the growth trajectory of e-commerce in India has attracted wide and varied interest from overseas, with the United States and China investing heavily in Indian e-commerce platforms and development. Time will tell what impact this has on the style of growth in India and how much the model will differ from China's.

5.0 SUPPORTING INFRASTRUCTURE IN CHINA & INDIA

Technological and physical infrastructure is critical to the success of rural e-commerce policy. A key difference in the development of e-commerce on both China and India, is that China's infrastructure is far more developed in rural and remote areas to support online business. As Turvey and Xiong (2017) argue, the Chinese government has spent the

last two decades working on financial inclusion in rural areas of China and developing access to internet all over the country. That dedication has given them the groundwork they needed for e-commerce to launch to the scale it has, for without internet connection and access to finance, it would be impossible of rural residents to launch online businesses in the first place. As Chalam and Rao (2014) argue, India on the other hand still faces a wide variety of challenges around financial inclusion, access to internet and basic physical infrastructure in many of it's rural areas. If the country is to launch e-commerce on a national scale and penetrate rural areas with the goal of economic growth, then building the digital and physical infrastructure needed will need to be a priority.

Aside from other physical infrastructure such as roads for delivery, a key component that supports e-commerce is the delivery and logistics side. As Zhu and Chen (2016) argue, China's appetite for rapid delivery has been fostered by the responsive delivery network across the country, made up of thousands of delivery vehicles and personnel who send parcels of online-purchased goods across the country, sometimes within the same day. However, it is important to note that this rapid delivery component to e-commerce in China has also developed in part due to consumer demands and trends in China, and with very differing consumer patterns and preferences in India, the corresponding development of its delivery system may vary from the Chinese model.

6.0 CONCLUSION

The rise of e-commerce business and technology around the world has disrupted the labour market, traditional rural sectors such as agriculture and also access to employment and financial participation in rural areas. With the world now facing questions around how to deal with the labour gap that technological advancement has caused, and how to get rural areas to participate in the new digital economy, e-commerce has become a topic of interest. China is the world's largest e-commerce market and it's development and growth has in part been fuelled by the appetite and demands of Chinese consumers, combined with effective government policy and connectivity and supporting infrastructure in rural areas. While their market is still smaller than China's, India's e-commerce growth trajectory, paired with a working population forecast to overtake China's in the next ten years, has resulted in foreign investment and businesses turning their eyes away from China's monster market, to the potential growth boom in India. However, rural e-commerce in India faces a variety of different road bumps to that in China, not limited to a lack of clear government policy around e-commerce, less developed digital and physical infrastructure and a far higher level of poverty in rural and

remote areas. Despite this, e-commerce is part of the new digital age and developing and developed countries alike will need to adapt and transform to accommodate it and take ownership over the opportunities for growth that it offers to both urban and rural areas.

Bridging the Gap:
Utilizing Citizen Science to Individualize Approaches to Environmental Challenges in China

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The environmental regulation and policy scene in China has opened up a new world of monitoring and protection. From the consolidation of the environmental ministries into the Ministry of Ecology and Environment in early 2018, to the war on pollution, to increased natural land and wildlife protection, there is a strong focus on environmental sustainability. As China pushes for better local environmental law enforcement, strives for more data collection, and focuses on creating more suitable goals based on local situations, NGOs will continue to play a critical role in achieving these ambitions, specifically through the utilization of citizen science.

Citizen science is a practice in which the public is included in scientific endeavors—such as data collection and monitoring—in order to better protect local environments and provide necessary information for policymaking. There are two gaps in environmental monitoring and protection in China that NGOs have the potential to fill through the use of citizen science. The first is the gap between citizens and scientists, the second is gaps in publicly available data. Government policy, scientists' needs, citizen interest, and technology are all converging in the environmental sphere, bridged together by NGOs and their increasing utilization of citizen science.

Given the wide range of environments throughout China—from deserts and mountain ranges, to grasslands and cities— and the culture and economies that have developed around them, environmental challenges are unique to each area, and significant amounts of data as well as individualized approaches are necessary in order to address them.

Data Availability

Publicly available data, however, has its gaps, and although much more has started to be collected and publicly published over the past few decades, even more progress in this realm is necessary. Environmental data that often should be collected includes: outdoor air quality, indoor air quality, water pollution, water use, surface water, drinking water, soil pollution, arable land, industrial land, biodiversity, natural habitats, terrestrial protected areas, marine protected areas, fisheries, species protection, forestry and logging, climate change, energy use, mining, and supply chain data. Much of the publication of this data has been

pushed for by NGOs, often through their inclusion of public participation platforms (citizen science), or through social media and app use.

This can be seen through the release of detailed air quality data in 2012, and the setting of Ambient Air Quality Standards, a year after the US Embassy in Beijing started publishing their own data on their twitter page, leading to an online public campaign calling for the opening of the monitoring data. Water quality data is incomplete throughout China, and has recently begun to be increasingly monitored through the black and smelly rivers program, an initiative started by the government and transitioned to the environmental NGO, the Institute of Public and Environmental Affairs (IPE), which has significantly expanded the functionality of this program. IPE began to include the program on its already existing blue map app, and this as well as a WeChat platform, allow citizens to take pictures and report any 'black' or 'smelly' rivers that they find. Many NGOs, at the beginning stages of their creation, focus on programming that will fill the data gaps that exist, including Shuixi Beijing's focus on natural river environment data collection; IPE's green supply chain data collection, water pollution data collection, and air pollution monitoring; Rock Environment and Energy Institute's (REEI) subway indoor air pollution data collection; and Green Camel Bell's grassland data collection are a few examples of the initiatives these NGOs are launching to fill these existing gaps.

Citizens and Scientists

In addition to filling the gaps of data that are either not being collected, or not publicly available, environmental NGOs in China have served as a bridge between different people and sets of knowledge. Specifically, they serve as a much-needed bridge between scientists and local citizens, of which both groups contribute necessary knowledge to environmental protection and monitoring efforts. On the citizen side, traditional and local expertise is contributed, from understandings of cultural values (an important aspect to consider in environmental work) to knowledge of the local economy to understandings of existing local efforts and environmental intricacies. This indigenous knowledge is often referenced in aid and development work as integral to project development, and environmental work is no different. However, local opinions are often overlooked, and in these instances, improper or inadequate environmental intervention or monitoring is implemented.

Similarly important, is including scientific research—this provides background research and data analysis abilities that local citizens often cannot do without the scientific training that these professionals have. For example, the creation of the blue map app's data collection system was

created by computer scientists and data scientists, who had to create a system that allowed for easy utilization of the reporting function, but also provided data that was useful to scientific analysis and held the potential to influence policymaking and future monitoring and interventions. In this situation, IPE decided that in order to provide accurate locational information of any reported dirty rivers, they would match the GPS location of the person with a narrowed choice of river names nearby, allowing for uniform reporting and eliminating any error that would occur by asking citizens to report the river name without having options to choose from. Similarly, REEI partnered with scientists at Tsinghua and Beijing University to analyze their indoor subway air pollution data and ensure that they created a report that was evidence-based. Scientists can often provide technical expertise, be it in creating an application for phones, understanding data collection methodologies and tools, as well as analyzing results; additionally, they often provide funding or tools that are otherwise hard to obtain.

Additional examples include, in Minqin county, efforts by Save Minqin Volunteers Association to reduce water stress through better agricultural techniques have directly drawn from local knowledge and best practices for agriculture, while also including scientists understandings of what crops are best suited for such an arid region and potential new technologies such as growing plants in mud greenhouses to reduce water evaporation. Shan Shui's Nature Watch program, phone app, and online reporting system, often rely on amateur birders to report bird sightings to their system and then is able to collaborate with the Center for Nature and Society at Beijing University to check all of their photographs and animal identifications.

Challenges

Although citizen science, used by NGOs in China, has the potential to bridge these existing gaps in society and data, there are a number of challenges that have to be overcome in order for this to be realized. Through a combination of institutional and government support for these initiatives, many of these challenges can be addressed. The main challenges that NGOs believe they face in scaling up citizen science are:

1.Inclusion of more citizens, especially in rural areas

2.Collection of valid and useful data

3.Finding suitable scientific partners

Citizen Inclusion

Given varying economic, social, educational, and environmental conditions, each region needs its own cohort of citizen scientists. In

this manner, data collection will be sustainable. However, many NGOs point towards a lack of citizen scientists as one of their greatest barriers to scaling up. Part of this is given the nascent stage of citizen science in China—although community-based practices have been common for a while, overall environmental NGOs in China only started in 1994, so there is not a long history of NGOs, much less the terminology of citizen science. The utilization of phone applications and WeChat has proven to be a useful tool for many of these organizations (IPE and Shan Shui), and with over 500 million individual users of WeChat in China, this platform is a great way to reach both urban and rural populations. Another challenge many NGOs point to is the education gap as well as the wealth gap between urban and rural areas. Urban centers have younger, more educated, higher income populations, where volunteering and participation in such environmental efforts is popular and a social affair. Meanwhile, in rural areas, where young populations are leaving to work in cities, leaving behind populations of children and grandparents, education levels are lower, income is less reliable, and unless there is a clear threat to one's livelihood, there is not the same popularity for participating in environmental monitoring and protection. In order to engage more rural populations, many NGOs have transitioned to using a rhetoric and methodology that proves the economic value of environmental protection. For example, Green Camel Bell in Gansu, Global Environmental Institute in Inner Mongolia, and Shan Shui in Qinghai are implementing ecotourism programs. These programs aim to include local populations in monitoring their landscape and reporting grassland conditions, while also providing an alternative source of income through tourism that is more successful if the lands and wildlife are well taken care of. Given that one of the main causes of grassland degradation in these areas is overgrazing, transitioning the economy while promoting local data collection and monitoring is just one example of creating economic incentives out of environmental protection.

Additionally, local government and company support would further advance the citizen science scene throughout China. Local governments, especially in rural areas, can look into partnering with these NGOs, scientists, and helping them contact local groups of people to participate in data collection, as the data that is being collected is, in the end, filling a gap in data that the government is unable to provide publicly. In 2015, the MEP approved a "scheme for building an ecological environment monitoring network" by 2021, and this large-picture goal to create a database and network for environmental monitoring should include and promote citizen scientists contributions. Given the already existing networks, albeit many small, this overarching policy is an opportunity to

promote citizen science and outreach to more participants.

Valid Data Collection

Another concern is the collection of valid and useful data. When involving local citizens, methodologies to ensure valid data are necessary, and this is why partnerships with are so important, and why NGOs functioning as the bridge between these two groups is necessary. Some of the most common data validation methods are: expert review, photo submissions, paper data sheets (in addition to online submissions to allow for more detailed explanations), and replication of the monitoring and collection by multiple participants. If instruments/technology is being used, groups will often calibrate the instruments at their own facilities. Additionally, training and on-site instruction of staff members is a helpful validation method, although not necessarily as sustainable, especially in rural areas. Building limitations into the data entry systems are other ways of ensuring validity, as was seen with the example of IPE's black and smelly river application including set potential locations for rivers.

Partnerships with larger companies and phone application servers, like Taobao, Baidu, and WeChat, can provide better data validation as these large companies have significant experience and capabilities. Groups such as the Society of Entrepreneurs and Ecology (SEE) have already partnered with Alipay to create a public participation program where people can plant a tree in Inner Mongolia if they earn up to a certain amount of points through walking or buying certain products. These types of partnerships should continue to be expanded upon, and large businesses should use their ability to reach a large population for better data collection and validation.

Scientific Partners

In order for data validation, a critical aspect is partnerships with scientific partners, which has proven to be difficult for many of these organizations. However, the current academic system in China promotes competitive, high-level, scientific studies that are able to earn the most prestigious grants, as this is how promotions within the field occur. Because citizen science is not yet popularized, and people do not yet view data collected by citizens as valid and useful for such high-level studies, it is hard to find well-trained scientists willing to partner with local groups and NGOs. This situation is a catch-22—as citizen science becomes more influential and valid, it will be more respected by scientists, but in order to gain this status, it needs the support of scientists. Thus, universities and the government need to further promote citizen science and government-related scientific institutes should act as the partners for citizen science initiatives and NGOs. In this manner, these institutes will have access to

large datasets, while also assisting the NGOs and citizens in collecting and validating data and building a name for citizen science. Universities can promote the utilization of citizen science by creating citizen science initiatives within their university structure, and even putting forward grants and finance for those who are inclusive of citizens in their environmental data collection.

Conclusion

Overall, citizen science, and NGOs acting as a bridge have the potential to close current gaps in environmental monitoring that are holding China back from addressing the environmental challenges it faces. Publicly available data is necessary for adequate monitoring and protection efforts. In order to achieve this, including citizens in data collection and protection practices will allow for a more sustainable future of implementation. Data collection by citizens needs the backing of not only NGOs, but also the scientific community, businesses, and government, as through such partnerships more valid data will be available, and it will prove more useful.

China's environmental challenges are highly unique to each local region, and in order to move towards national environmental objectives, a local lens needs to be taken—citizen science and NGOs are indispensable in moving in this direction.

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游天龙　亚利桑那州立大学司法研究博士生

政府对跨境电商提供法律事务援助

农村中小企业在从事跨境电商业务的时候因为缺少对其他国家法律的基本认知，很容易会遇到法律上的纠纷。但因为缺少有效可靠的渠道第一时间获取法律援助，农村中小企业家无法在遇到法律问题的时候一筹莫展，并且在联系上法律服务从业者的时候因为自身受教育水平低等原因很难有效的表达诉求、理解案情和辩护策略、建立与法律服务从业者之间的信任。而在没有有效法律服务的情况下，中小企业家在面临法律诉讼的时候会选择和解，支付赔偿金后尽快恢复生产经营。即使中小企业想打官司，诉讼费用也非常高昂，远超一般企业的能力。而且诉讼结果的不确定性以及其他企业搭便车的行为也打击了中小企业应诉的积极性。

但当大多数中小企业家都采用同一策略的时候，就出现了经典的囚徒困境，每个博弈参与者都选择对自己最有利的策略，结果出现了对所有人都不利的局面。同样，在这里出现的情况是，中国中小企业"怕事"的心态被不怀好意的外国商家乃至外国专业"碰瓷"的律师事务所所利用，通过钓鱼等方式搜集对中小企业不利的证据，在以滥讼的方式撒网式榨取和解金。而大量中小企业被迫和解，反而导致他们在海外遇到更多的类似诉讼纠纷，严重的影响了他们拓展海外市场的能力和意愿。在这种情况下，地方政府应该发挥更积极的作用。

首先，地方政府应该发挥桥梁作用，联系北上广的大型涉外律所和有法律纠纷的地方跨境电商。这不仅有效的解决了中小企业获取高质量法律服务的难度，而且有地方政府作为"信用担保"，中小企业也会降低因"知识鸿沟"所产生的不信任感。将有类似法律问题的跨境电商"打包"委托大律所，一方面降低了每个涉案企业的律师费成本，一方面也提高了涉外大律所的接受委托的意愿。

其次，地方政府应积极牵头筹办诉讼辩护基金，以自身号召力团结辖区内从事跨境电商的中小企业给该基金定期缴纳资金，以保险的方式运营。这样当遇到诉讼的时候，中小企业不至于因为资金和运营压力过早妥协，也不用担心自己被同行搭便车。如果中小企业积极应诉，最起码也能让原告面临相当的资金压力，让他们日后有所顾忌；效果好的话，可以创立对类似情况都适用的案例。

再次，地方政府应鼓励地方行业协会聘用服务全行业企业的跨境业务的专职法务，相当于全行业企业众筹了一位律师帮助处理日

常经营中会遇到的法律问题。诉讼都是法律服务的最后环节，最好的方法还是防范于未然，让法务及时就外国相关法律的进展通知到各会员企业，并协助制订各企业的公司章程，将生产经营各个环节规范化。地方政府和行业协会也应积极安排有经验的律师"送法下乡"，通过面授或网课的方式给跨境电商进行相关培训。

提高教育投入

在电商走向国际化的过程中，最大的困难就是语言关。受制于外语水平和受教育水平的局限，最熟悉生产流程的企业家无法和外国商家和消费者进行有效、直接的沟通，不得不额外雇佣掌握一定外语技能的销售员。但这也面临诸多问题，比如销售员并不是熟悉生产流程，对于外国商家的定制化需求难以应对；这些销售员也大多并非销售领域出身，而更多是因为外语能力而被雇佣，所以也未必具有出色的销售技能；而因为销售员直面客户，也时常出现能力强的销售员自行创业并将带走客户的恶意竞争现象。

最根本的解决办法，在笔者看来还是教育。在电商村因为创业氛围浓郁，很多年轻人及其家长受读书无用论的影响，贪图眼前利益，缺少长远眼光，在完成九年义务教育之后就没有继续读书。加上我国城乡教育水平的巨大差异，农村孩子在英语教育领域起步晚基础差，过早的结束基础教育让他们日后很难有机会再补课。我认为地方政府在从电商经济发展中获得更多收益的情况下，应该通过财政扶持、政策引导、舆论宣讲等方式鼓励农村青少年主动、乃至强制接受 12 年完整的基础教育；并给予当地针对跨境电商的英语培训项目以各种形式的支持，鼓励更多的人提高自身英语水平，以便日后独立与外商沟通。

跨境电商从业者有时候不仅缺少英语沟通能力，很多时候也缺少对异国文化的最基本理解。比如很多跨境电商的产品页面上，他们将"金刚"作为普通的大猩猩来销售，生产了星战元素的产品却并不知道和星战有关，产品介绍部分极其简单，无法传递丰富的信息。这样一来增加了外国买家对产品属性的信息获取成本，一方面又可能中国卖家低价出售了原本有文化附加值的产品。某种程度上来说，这是英语能力欠缺的另一个层面的体现。

政府应转变治理方式

对比浙江义乌和山东曹县两地政府，义乌更接近服务型政府的模式，致力于积极创建良好的营商环境，为企业争取优惠的中央政策，在人才、土地、基建等各方面提供有利的地方政策。而曹县政府则相对更积极的介入到产业发展规划之中，但我个人观察曹县的政策某种程度上有沦为形式主义的迹象。比如扶贫车间，在电商经济发达的村，因为本来蓬勃发展的中小企业就会兴建车间厂房，政

府出资办扶贫车间其实是一种资金没有合理安排的表现；而在电商经济尚不发达的村，兴建扶贫车间则属于资金被占用、资源被闲置，当地暂时还没有产生需求。所以，曹县政府虽然已经比中西部很多地方政府在电商发展上做的更好，但还应该继续放手，把中央的两千万转款用在企业难以去投入的领域，比如人才引进、基础建设、教育培训、区域合作等。

Inviting Contributions to China Watch 2018

To construct new-type think tanks, promote the conversion between research and policy-making advice, and provide more high-quality reports and advices, Fudan Development Institute and Centre for Think-tanks Research and Management in Shanghai decide to solicit contributions from Chinese and overseas scholars to *China Watch*. *China Watch* focuses on hot issues in various fields of China. In the first semimonthly, it selects the latest achievements of top foreign think tanks, themed by 'International Perspectives and Forefront Issues'; in the second one, it collects the policy analysis of Chinese experts, themed by 'Chinese Think Tanks and Contributions to Development'.

Requirements

1. This contribution should be policy analysis or advice, reflecting author's deep thinking of forward-looking and comprehensive issues. Topics include but are not limited to Chinese domestic affairs, foreign policies, economy, society, education and other issues involving China's development.

2. The English edition could be articles published by foreign think tanks or major media in English (if the article is in other foreign language, please attach a 200-word abstract), or English research achievements of yourself. If the contribution is accepted by editorial department, it will be translated by the referrer or editorial department.

3. The Chinese edition is open to all the institutions and individuals. The topic is decided by yourself and the language should be succinct and not academic. 3000 words are proper, and there should be an introduction of the author within 100 words in the end. If the contribution is involved in sensitive issues, please burn it onto disc and post it to the editorial department with paper edition instead of sending it by email.

Notices

1. Email address: thinktank@fudan.edu.cn. Please fill the title of your contribution in the email subject and attach the following information (very important): Article, Author, Referrer, Address, Email, and Telephone Number.

2. One contribution at a time. Please not deliver more than one contribution at a time, or deliver repeatedly.

3. The contribution could be delivered to other publications and we'll reply in one month. If the contribution is accepted, the editorial department will reward it.

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