

GLOBAL INFORMATION SOCIETY WATCH 2018

Community Networks



ASSOCIATION FOR PROGRESSIVE COMMUNICATIONS (APC)
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This edition of GISWatch came into being alongside a brand new baby boy. Welcome to the world, Ronan Diga!

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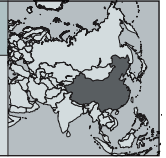
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CHINA

WHERE COMMUNITY NETWORKS MAY NOT GO: E-COMMERCE CLAIMS TO BRIDGE THE RURAL-URBAN GAP IN CHINA



Hudson Lockett

Introduction

Much international coverage of China has focused on policy and practices related to what happens online rather than the infrastructure that makes those connections possible. But since the mid-1990s, when the country's central government began linking up the data networks of dozens of major cities, China has brought more people online than any other country on earth.¹

Yet as is the case in many developing countries there remains a "digital divide" between the wealthy and impoverished in China, the latter of whom are found primarily in the countryside.² And despite Beijing's nominal command over the state-owned companies that dominate the domestic telecoms sector, they have been slow to build out the final miles of telecommunications infrastructure needed to bring the country's most remote and impoverished citizens into the digital age.

In some countries such as underserved populations might have their needs met through setting up community-owned networks, which can offer cheaper entry level prices and more transparent pricing than private companies, as was found in a report on 40 community-owned internet service providers in the United States published by Harvard University's Berkman Klein Center for Internet & Society.³

However, China's governance model forbids significant organisation outside the purview of the state. Thus state telecoms operators and state-supported e-commerce companies have co-opted (or fenced off) niches that might otherwise be filled

by community networks. This begs the question of whether they then also provide sufficient substitutes for the access and advantages of such networks.

Policy and political background

China's telecommunications services and facilities are ultimately controlled by four state-owned companies – China Mobile, China Unicom, China Telecom and the much smaller China Broadcasting Network – on sovereignty and national security grounds.

In 2015 the State Council, headed by Premier Li Keqiang, said China would invest an estimated RMB 140 billion (USD 20.9 billion) by 2020 to expand broadband internet to 98% of the country's 500,000 administrative villages.⁴ But things have not been that easy.

Reforms in the late 1990s broke China Telecom's effective monopoly under which rural service expansion was subsidised by more profitable urban branches.⁵

Now state firms supposedly tasked with rural build-out also compete with each other and are ostensibly subject to targets for returns and growth rates set by China's state-owned enterprises regulator. These contradictions in policy contribute to a persistent gap in internet penetration between cities and the countryside, as developed urban centres with existing network infrastructure offer cheaper opportunities for profit.

Although China's national internet penetration rate was 55.8% in 2017, the penetration in urban areas (71%) stood at roughly double the rural rate (35.4%). The nearly 36 percentage point gap between the two was more than double that of 14 percentage points recorded in 2005. And of the 611 million people in China who did not use the internet, 62.4% were rural residents.

1 Harwit, E. (2004). Spreading Telecommunications to Developing Areas in China: Telephones, the Internet and the Digital Divide. *The China Quarterly*, 180, 1010-1030. <https://www.cambridge.org/core/journals/china-quarterly/article/spreading-telecommunications-to-developing-areas-in-china-telephones-the-internet-and-the-digital-divide/2CE1A395D9023512C10487BCEC23D16B>

2 Ibid.

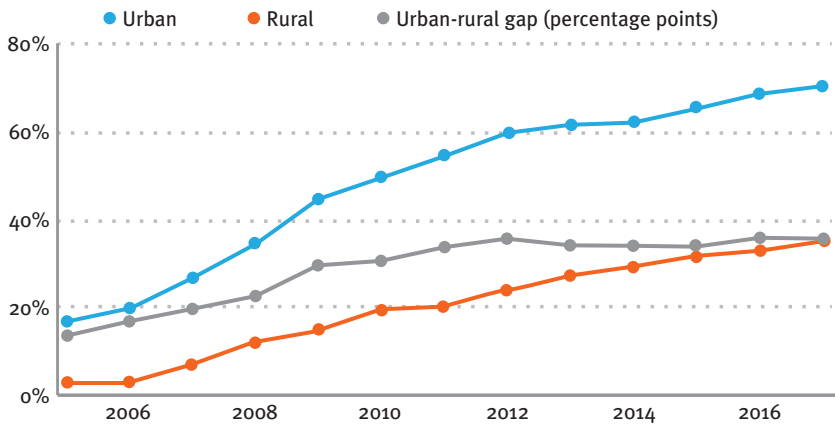
3 Talbot, D., Hessekiel, K., & Kehl, D. (2017). *Community-Owned Fiber Networks: Value Leaders in America*. Berkman Klein Center for Internet & Society. <https://cyber.harvard.edu/publications/2018/01/communityfiber>

4 Reuters. (2015, 14 October). China to invest \$22 billion to extend broadband to 50,000 villages. *Reuters*. <https://www.reuters.com/article/us-china-telecoms/china-to-invest-22-billion-to-extend-broadband-to-50000-villages-idUSKCN0S819L20151014>

5 Peng, S. (2004). Universal Telecommunications Service in China: Trade Liberalization, Subsidy, and Technology in the Making of Information Equality in the Broadband Era. *Asian-Pacific Law & Policy Journal*, 4, 21-49.

FIGURE 1.

China internet penetration 2005-2017



Source: China Internet Network Information Center

This would appear to highlight gaps more readily filled by community-owned networks, but multiple factors in China work against this model, including an opaque pricing mechanism for fees charged by major operators for competitors' use of their networks.⁶ The central government in any case is now focused on boosting efficiency rather than introducing new competitors. In 2015 the major carriers were forced to spin off their network infrastructure assets into China Tower Corp to avoid additional reduplication of infrastructure that had resulted from competition.⁷ Insofar as this research could find there are currently no national-level regulations specifically pertaining to community networks.

The development of "rural e-commerce"

With widespread creation of community-owned networks unlikely thanks to government policy, e-commerce companies have sought to cast themselves as the internet-enabled saviours of China's rural hinterlands. The most high-profile of efforts by these companies has been Alibaba's Rural Taobao programme, officially launched in 2014 to improve market penetration outside of cities for Taobao.com, its online marketplace comparable to Amazon.

com.⁸ (The Chinese for Taobao 淘宝 can be translated roughly as "bargain hunting".)

Alibaba has framed this drive as a programme that is equally aimed at bettering the lives of China's rural residents, and to great effect. The programme has garnered much positive attention from international press, with headlines such as "Once poverty-stricken, China's 'Taobao villages' have found a lifeline making trinkets for the internet".⁹

Chinese media descriptions of Rural Taobao frequently echo the following excerpt from a story published by Xinhua, China's state news agency:

Rural Taobao is an ambitious effort by Alibaba to turn China's hundreds of millions of rural residents into online shoppers and sellers. It also underscores the potential of e-commerce to fuel economic activity and eliminate poverty in the country's poorer, largely agrarian regions.¹⁰

As of December 2017 the company said it had invested about US 1.6 billion to establish 30,000 service centres across China to enable faster deliveries and allow villagers with little or no access to

6 Wu, I. (2015, 20 September). Electricity and Telecom Regulation: China in Context. *Competition Policy International*. <https://www.competitionpolicyinternational.com/electricity-and-telecom-regulation-china-in-context>

7 Reuters. (2014, 11 July). China's three state-owned carriers form telecoms tower firm. *Reuters*. <https://www.reuters.com/article/us-china-telecommunications/chinas-three-state-owned-carriers-form-telecoms-tower-firm-idUSKBN0FG11X20140711>

8 Soo, Z. (2018, 19 April). Alibaba invests 4.5 billion yuan in online services firm to boost rural strategy in China. *South China Morning Post*. www.scmp.com/tech/china-tech/article/2142380/alibaba-invests-45-billion-yuan-online-services-firm-boost-rural

9 Freedman, J. (2018, 21 June). Once poverty-stricken, China's "Taobao villages" have found a lifeline making trinkets for the internet. *Quartz*. <https://qz.com/899922/once-poverty-stricken-chinas-taobao-villages-have-found-a-lifeline-making-trinkets-for-the-internet>

10 Xinhua. (2017, 11 July). UN, Alibaba cooperate to improve China's rural e-commerce infrastructure. *Xinhua*. www.xinhuanet.com/english/2017-07/11/c_136435314.htm

the internet to use the Taobao shopping platform, and had partnered with local governments to provide easier access to computers and training on how to use the internet and online payments.

Alibaba has made a special effort to depict Rural Taobao as also connecting rural producers of local goods with potential buyers in China's more affluent and populous cities – a substitute for the kind of market access that community-owned networks can provide as they link underserved communities to the broader internet within a country and beyond its borders.

Videos produced by Alibaba showcase success stories like that of one turquoise seller from a village in Hubei province. “Since starting the Taobao shop, instead of so few youths staying in their hometown now young people don’t go out of town for work,” she says in one video.¹¹ That development aligns neatly with the central government’s goal of slowing migration from the countryside to major cities, which leaves behind vulnerable populations of the elderly and children.

The link between Alibaba’s programme and the State Council’s standing call for a more networked countryside got an official boost in 2015 when Zhang Gaoli, then vice-premier under Li, visited a “Taobao village”, which Alibaba defines using the following three criteria:

1. Residents got started in e-commerce spontaneously primarily with the use of Taobao.
2. Total annual e-commerce transaction volume is at least RMB 10 million (USD 1.5 million).
3. At least 10% of village households actively engage in e-commerce or at least 100 active online shops have been opened by villagers.¹²

According to local media coverage of his visit, Zhang “praised again and again” the way villagers’ incomes had risen and their quality of life increased thanks to their use of Taobao.¹³

Little wonder that in 2016, the State Council Leading Group for Poverty Alleviation and Development and a host of top government bodies jointly released guidelines that called for construction of 60,000 “e-commerce poverty relief

stations” in about half of China’s impoverished villages, as well as a quadrupling of e-commerce sales for villages in impoverished rural counties by 2020.¹⁴ The year 2020 is also politically significant, as it marks the Chinese Communist Party’s self-imposed deadline for total eradication of rural poverty nationwide.¹⁵

Also in 2016 the World Bank and Alibaba signed an agreement for “cooperation to research the Taobao village phenomenon”, which the bank said was intended to produce knowledge with which “we hope to be able to help villages in poor and remote areas in China to become Taobao villages as well, and help lift themselves out of poverty.”¹⁶ Even the United Nations provided its own endorsement the following year when it allocated USD 200 million for construction of rural e-commerce infrastructure in the provinces of Sichuan, Shaanxi and Ningxia.¹⁷

Yet as of 2017, Alibaba reported that only 2,118 villages had enough shops and sales turnover to qualify as “Taobao villages” – about one for every 14 service centres, suggesting a less-rosy reality on the ground for most rural entrepreneurs seeking better business prospects through countryside programmes provided by e-commerce companies.¹⁸

The telling story of Yu Xueyi

The highest-profile critique to date of Alibaba’s rural expansion programme came from Yu Xueyi, who in 2017 quit his job with Rural Taobao after two years operating a logistics outlet for Alibaba in his home village of Yongning, located in one of the poorest counties of the inland province of Anhui.

In an essay for the state-owned, English-language news website Sixth Tone, which targets foreign readers with stories that focus on personal narratives, Yu wrote that he had signed on to be a local partner for Rural Taobao in 2015 when the local government announced it had agreed to work

11 “Villager’s Taobao Store Turns Turquoise into Gold”, available at: <https://www.youtube.com/watch?v=oFcLD-T5HmA>

12 Alizila. (2016, 27 January). An introduction to Taobao Villages. www.alizila.com/an-introduction-to-taobao-villages; note that Alibaba does not give a clear definition of what qualifies as an “active” online shop.

13 Hao, G. (2015, 25 October). Zhang Gaoli visits Taobao Village in Cao County, reminds shopowners to take care of themselves. *Dazhongwang Shandong*. sd.dzwww.com/sdnews/201510/120151025_13231521.htm

14 State Council Leading Group Office of Poverty Alleviation and Development. (2016, 23 November). Guidance on Promoting E-commerce for Targeted Poverty Alleviation. www.cpad.gov.cn/art/2016/11/23/art_624_55721.html

15 Hernández, J. (2017, 31 October). Xi Jinping Vows No Poverty in China by 2020. That Could Be Hard. *The New York Times*. <https://www.nytimes.com/2017/10/31/world/asia/xi-jinping-poverty-china.html>

16 Hofman, B. (2016, 29 October). The Taobao Villages as an Instrument for Poverty Reduction and Shared Prosperity. *World Bank*. <https://www.worldbank.org/en/news/speech/2016/10/29/the-taobao-villages-as-an-instrument-for-poverty-reduction-and-shared-prosperity>

17 Xinhua. (2017, 11 July). UN, Alibaba cooperate to improve China’s rural e-commerce infrastructure. *Xinhua*. www.xinhuanet.com/english/2017-07/11/c_136435314.htm

18 Aliresearch. (2017). *China Taobao Village Research Report*. <http://i.aliresearch.com/img/20171211/2017121101359.pdf>

with Alibaba in hopes of boosting consumer spending and relieving local poverty.¹⁹

The government provided a rent-free space in the middle of town and Alibaba donated a computer, furniture and flat-screen TV to Yu, who was tasked with delivering packages to difficult-to-reach rural homes. But the programme started to lose its appeal when Yu saw it had failed to follow through on its promise of connecting rural sellers with China's prosperous cities.

"Even though the platform would advertise examples of villagers making stacks of cash by selling tea, oranges, or herbal medicines to the cities, in reality, most of these examples were mere publicity stunts concocted by local governments with the tacit approval of Rural Taobao," Yu wrote.

Yu's account also tracks with a 2017 review of academic studies published in the quarterly journal *China Perspectives*, which found that the typical experience of rural e-commerce outfits was far more cutthroat.²⁰ Studies cited in the review found rural online retailers in China were often rapidly emulated, since most were unable to offer products that were not easily duplicated – circumstances that often led to rapidly diminishing margins and which undermined those businesses' sustainability.

Yu also criticised the segregation of Rural Taobao from other branches of Alibaba's e-commerce network, pointing out that if rural sellers wanted to open an account with Tmall.com – the higher-profile consumer goods platform targeting China's growing middle class – they had to pay a RMB 200,000 (USD 29,830) deposit that was well beyond the means of most local shop owners.

The experience of Yu's village may well be closer to the norm than the success enjoyed by the few thousand official Taobao villages recognised in 2017. Moreover, the utility of Taobao villages in addressing the wealth gap between rural and urban China is questionable.

A study based on a list of such villages from 2013 to 2015 found that over 90% were located in more-developed eastern coastal provinces.²¹ A quick calculation based on figures published by Alibaba in 2017 show those provinces' share of Taobao villages at 96%.

These same coastal provinces have been the biggest beneficiaries of China's economic development and the accompanying infrastructure build-out seen in recent decades and, perhaps unsurprisingly, enjoyed an average internet penetration rate of more than 60% at last count.

That is comfortably above the national rate, whereas the internet penetration rate for Yu's home province of Anhui stood at about 44%, ranked 26 out of 31 administrative districts.²² And only 33 Taobao villages were located in counties recognised by the central government as priority areas for poverty alleviation and development, of which there are 933 in total.

These figures suggest that the systems being built by private companies to enable greater penetration of e-commerce into the countryside are unlikely to provide the kind of poverty panacea sought by Beijing. Yu, for his part, ultimately quit working for Rural Taobao and returned to his previous trade: rabbit farming.

Conclusion

China's transition from a centrally planned economy to a more market-oriented system in which the private sector is allowed to flourish in certain sectors has enabled hundreds of millions of people to lift themselves out of poverty. However, as recognised both within China and by outside observers, more recent years have provided ample evidence that the low-hanging fruit of economic reforms have long since been plucked.

Indeed, when the World Bank announced its cooperation agreement with Alibaba in 2016 it acknowledged that "many of the world's people are still off line and can't participate in the digital economy in any meaningful way – for China this number is still about half of the population." Its first and most emphatic recommendation for solving that problem was "making the internet universally accessible and affordable."²³

Ultimately Beijing's embrace of e-commerce as a cure for what ails rural China ignores the role that infrastructure played in allowing urban e-commerce to flourish. Rather than deal with the lack of telecommunications infrastructure in rural areas that has resulted from government policies that privilege financial performance over public utility at state-owned providers, Beijing has opted to allow established e-commerce giants like Alibaba and

19 Yu, X. (2017, 9 March). Why I Quit Alibaba's Big Push Toward Countryside Commerce. *Sixth Tone*. <https://www.sixthtone.com/news/2031/why-i-quit-alibabas-big-push-toward-countryside-commerce>

20 Li, A. (2017). E-commerce and Taobao Villages: A Promise for China's Rural Development? *China Perspectives*, 2017/3. www.cfcfc.com.hk/issue/china-perspectives-20173

21 Xu, Z., Wang, Z., Zhou, L., & Wang, H. (2017). Spatial Distribution Characteristics and Driving Factors of "Taobao Village" in China. *Jingji Dili (Economic Geography)*, 37(1), 107-114.

22 China Internet Network Information Centre. (2018). 41st Statistical Report on Internet Development in China. https://www.cnnic.net.cn/hlwfzyj/hlwzxbg/hlwjtjbg/201803/t20180305_70249.htm

23 Hofman, B. (2016, 29 October). Op. cit.

JD.com to push into the countryside with initiatives that promise to finally let trade flow between remote towns and urban consumers.

But the scholarship to date on these drives, official figures and anecdotal evidence suggest that the chief beneficiaries may be the companies like Alibaba that manage to penetrate China's rural markets in order to ensure continued sales growth as urban markets become increasingly saturated. Promoting e-commerce in areas not yet fully wired to the rest of the country ignores the role foundational infrastructure played in allowing online commerce to become such an important part of China's economic growth – and thus poverty reduction – in the first place.

Action steps

The following recommendations can be made for China:

- Policy encouraging experimentation with community-owned networks that can operate within China's unique telecommunications environment should be implemented at the national level, with central government-funded subsidies made available to impoverished counties for build-out of network infrastructure where feasible.
- In the absence of community-owned networks, national-level policy should provide incentives to encourage the profitable e-commerce companies expanding their presence in the countryside to subsidise further network build-out in these areas by major state-run telecoms companies.
- To the extent that growth in rural e-commerce continues to be endorsed as a national policy priority, greater regulatory scrutiny of programmes like Rural Taobao is necessary to better gauge the extent to which they actually assist less-developed communities in the countryside in escaping poverty, as opposed to simply increasing revenues at parent corporations.

Community Networks

THE 43 COUNTRY REPORTS included in this year's Global Information Society Watch (GISWatch) capture the different experiences and approaches in setting up community networks across the globe. They show that key ideas, such as participatory governance systems, community ownership and skills transfer, as well as the "do-it-yourself" spirit that drives community networks in many different contexts, are characteristics that lend them a shared purpose and approach.

The country reports are framed by eight thematic reports that deal with critical issues such as the regulatory framework necessary to support community networks, sustainability, local content, feminist infrastructure and community networks, and the importance of being aware of "community stories" and the power structures embedded in those stories.

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