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Telecommunications Policy

URL: www.elsevier.com/locate/telpol

Universal service policy in China (I): Institutional elements and ecosystem



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ARTICLE INFO

Available online 19 January 2016

Keywords:

Comprehensive information services (CIS)
Rural informatization
Universal service obligations (USOs)
Digital divide
Broadband Internet
Implementation success
Institutions

ABSTRACT

The integration of “access” and “applications” into a single national program, as demonstrated in the Chinese case, once succeeded, may constitute a milestone in the arena of universal service policy and implementation. Despite scholarly consensus on the relevance of institutions, none has been found on a systemic examination of institutional variables in explaining the effectiveness of policy and implementation, let alone knowledge gap in a transitional context. Following historical institutionalism and case method, this and the companion paper bridge the gap by synthesizing a conceptual framework which integrates various institutional dimensions and policy elements underpinning the implementation of universal service initiatives. This paper provides a formal institutional perspective on the analysis and assessment, *ex ante* or *ex post*, of universal service policy and projects in China. The conceptual framework may serve as the basis for the analysis and assessment of China’s rural informatization regime and projects. Meanwhile, the ecosystem model proposed in this paper has a potential of being extended to other countries. This study may collaterally further understanding of China’s ongoing market reform from a nonmarket perspective.

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1. Introduction

Universal service policy, or, in the Chinese case, rural informatization policy, is a multiple-dimensional scholarly subject which is linked to efficiency, equality, development, and growth. Thus far, the subject has been studied among academia from multiple perspectives—politics, sociology, management, economics, and public policy, among others (e.g., Bertot, 2003; Hilbert, 2011; Madden, 2010; Milne, 1998; Muller, 1999; Polat, 2012; Shuler, 1999; Srinuan, Srinuan, & Bohlin, 2012; Xia & Lu, 2008). Nevertheless, over the past decade, nowhere is this subject more concertedly committed and comprehensively approached than in China where the government has been trying to integrate “access” and “applications” into a single conception, if not yet an integrated regulatory platform—i.e., the Village Informatization Program (VIP). The VIP conception transcends various government departments such as: the Ministry of Information Industry (MII) (now the Ministry of Industry and Information Technology (MIIT)), the Ministry of Agriculture (MOA), the Ministry of Science and Technology (MOST), and the Ministry of Finance (MOF), among others (Xia, 2010; Xia & Lu, 2008). In practice, countries or regions have been introducing public intervention into this subject under rather fragmented labels such as universal service, digital

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divide, E-government, and broadband deployment—which have fallen into two general categories, namely, “access” and “applications” (Helbig, Gil-García, & Ferro, 2009). In comparison, China’s VIP program is meant to be a national initiative intended to “informatize” rural communities and their members by:

- Improving rural “access” to information and communication technology (ICT) infrastructures, including telephone, television, and the Internet;
- Providing “applications” of so-called “comprehensive information services” (CIS), including those information services that are related to production, commerce, and daily life in rural China.

In an even broader sense, the term “informatization” used by China’s government refers, rather loosely, to those initiatives or activities that are involved in bringing (integrating) modern ICT into the production, commercial, organizational, and social processes in an effort to facilitate the same.

The development of ICT in rural China had witnessed stagnation in the initial stage of separating telecommunications business from the government between 1998 and 2004. During this period, telecom operators lacked incentives to extend networks to unprofitable rural areas because of commercial considerations. Since 2004, the government has been in aggressive promotion of ICT deployment in rural areas, which has since evolved from the early rollout of the Village Access Project (VAP) in 2004,¹ the VIP program in 2006,² and, eventually, to the “Broadband China” plan in 2013.³ According to the “Broadband China” plan, the percentage of village access to broadband services will reach 95% in 2015 (the 12th “Five-Year-Plan” (FYP)) and 98% in 2020 (the 13th FYP). The promulgation of the “Broadband China” plan marks an even further upgrading of rural informatization objectives in that the plan has explicitly taken broadband Internet services into the VIP programs.

Only within a decade, China’s rural informatization objectives and policies have upgraded from telephone access to Internet access, from the old plain voice grade telephony to the CIS. As another eye-catching event, in December 2013, China issued 4G LTE licenses to three telecom carriers—i.e., China Mobile, China Unicom, and China Telecom—five years after its 3G licensing action took place in January 2009.⁴ The deployment of 4G networks and services will translate into even more ambitious goals of rural informatization in the coming years. For semantic convenience, the rural informatization components embedded in the “Broadband China” plan can be treated as a broadband VIP (or B-VIP) which effectively serves as a “Version 3.0” of China’s rural informatization efforts, evolving from the VAP (“Version 1.0”) and then VIP (“Version 2.0”).

China’s national rural informatization initiative is distinct from any other countries in the world, in terms of its extensiveness in service coverage and intensiveness in national mobilization. The integration of “access” and “applications” into a single national program, as demonstrated in the Chinese case, once succeeded, may constitute a milestone in the arena of universal service policy and implementation. Thus far, China has fared well in some projects but encountered difficulties in some others. What trajectory has been followed by and how effective is the implementation of rural informatization in China? What have proved to be the factors leading to success or failure? Above all, does China’s institutional uniqueness complicate or simplify these questions? The Chinese case provides such a chance for people to study and learn. Despite previous researches on China, knowledge gap exists on a systemic approach toward the institutional factors underpinning implementation success or failure. This present study bridges the gap by bringing China’s country context into the synthesizing of deeper level institutional elements underpinning the national rural informatization drive.

This study is explorative. In this and the companion paper (see, Xia, 2016), we take a systemic retrospect on the policy process and implementation of China’s national rural informatization programs. Following a historical institutionalism and case method, this present paper (which delineates institutional elements and ecosystem) puts forward a conceptual framework which integrates various institutional dimensions and policy elements underpinning the implementation of China’s national universal service initiatives. Based on the conceptual framework, the companion paper (which studies specific VIP projects) explores specific institutional variables. As this paper and its companion piece demonstrate, China has succeeded, at best, in the supply-side “access” level of the rural informatization ecosystem (Xia, 2016). Factors contributing to implementation success have, path-dependently, highlighted the functioning of regulative institutions but considerable less so of informal side of institutions which has effectively posed as an institutional bottleneck for future implementation.

As a China-based scholar, the author of this study has consistently followed China’s universal service policy since the 1990s. During 1999–2000, the author acted as a policy adviser on universal service for China’s regulatory authority in telecommunications. Over the past two decades, the author has had extensive interactions with the industry, including dedicated research trips across the country.

This paper proceeds as follows. Section 2 explains the background and establishes institutional context; Section 3 explicates policy elements and measurements of implementation success; Section 4 characterizes China’s rural

¹ See “Rural communications universal service: Implementation method of the Village Access Project,” MII decree, Beijing, 2004. (In Chinese)

² See “Directive Suggestions on the natural village VAP and telecom carriers’ promotion of rural informatization test work in 2006,” MII decree, Beijing, 2006; “Suggestions on the promotion of the construction of Socialist New Villages,” MII decree, Beijing 2006; “Framework on the construction of agriculture and village informatization (2007–2015),” MOA decree, Beijing 2007; “Notice on the promotion of national rural informatization model work,” MOA decree, Beijing, 2007. (In Chinese)

³ See “Broadband China” strategy and implementation plan,” State Council decree, Beijing, 2013. (In Chinese)

⁴ See “MIIT interprets 4G licensing,” MIIT news release, Beijing, 2013; “MIIT issued 4G licenses,” MIIT news release, Beijing, 2013. (In Chinese)

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