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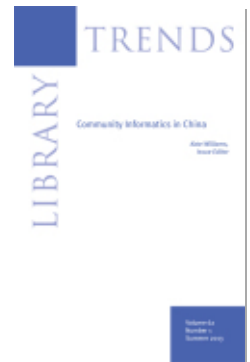
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## Farmers' Reading Rooms and Information and Communications Technology in Rural Areas of Beijing

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# Farmers' Reading Rooms and Information and Communications Technology in Rural Areas of Beijing

TIAN RUI 田瑞

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## ABSTRACT

The reading rooms in the rural areas of Beijing are among the oldest farmers' reading rooms in China. By 2011, 3,974 farmers' reading rooms had been established in rural areas of Beijing; there is now one farmers' reading room in each village. This essay investigates the use of farmers' reading rooms and information and communication technology (ICT) by villagers in eight villages of Fangshan District in Beijing from the perspective of community informatics. The study that forms the basis of this essay found that the "hollowing-out" of the rural population is one of the major reasons why the utilization rate of farmers' reading rooms, computers, and the Internet is still low in the rural areas of Beijing. Thus, the author argues that although mobile Internet applications may narrow the urban-rural digital divide, it is necessary to accelerate the digitization upgrade of the farmers' reading rooms in rural areas. The government should also develop appropriate related policies, give subsidies to reduce Internet access fees, and prioritize training farmers in the use of ICT.

## INTRODUCTION

In March, 2007, the General Administration of Press and Publications for the People's Republic of China published a *Notice about Printing Implementation Opinions of Farmers' Reading Rooms* "农家书屋" 工程实施意见. This led to the creation of the nationwide Farmers' Reading Rooms project. Designed to be centers where farmers can access cultural resources of interest to them, farmers' reading rooms are cultural facilities built in administrative villages. Managed by the farmers themselves, the reading rooms have books on agricultural topics, as well as facilities for listening to and viewing audiovisual material (General Administration of Press and Publication, 2007). By the end of 2011, 505,000 farmers' reading rooms

had been built in about 84 percent of all the administrative villages in China. Nearly one billion farmers have benefited from these reading rooms. They have become a main venue for public cultural services in rural areas. They are also the most practical project to come out the current village cultural development initiatives and offer an efficient way to raise the education level of farmers in China (“Farmers’ reading rooms,” 2012).

A farmers’ reading room is a type of small village library. It is generally located in the same buildings that house the village committee. These buildings are where village Party Committee events and other cultural activities happen. The reading rooms comply with national building standards. A typical library is staffed by 1 to 2 supervisors and has 1,500 books, 25 different magazines, 5 different newspapers, and is about 20 square meters in size.

The farmers’ reading rooms in the rural areas of Beijing were among the earliest established in China. In 2005, Beijing started the project Study Benefit People’s Engineering 读书益民工程 and built about 1,000 reading rooms—which targeted Beijing-area farmers as well as non-farm workers and students in villages (Beijing Municipal Bureau of Press and Publication, 2009). But since 2008, the reading rooms have mainly served farmers. By 2011, 3,974 reading rooms had been completed in rural areas of Beijing. There is now a reading room in each village (Wang, 2012).

As farmland in China’s rural areas has diminished in size and productivity, a great number of young and middle-aged rural laborers have left home and moved to urban areas in search of higher incomes. And although these migrants remain connected to their home villages, it is hard for them to return home. Villages in the rural areas of Beijing, for instance, are about 30 to 150 km from urban areas, and public transportation does not easily connect to many villages. Thus, many rural areas have seen a massive out-migration of young people. Those who remain in the villages are mostly women, children, and the elderly—indeed, a typical “left-behind” family in these areas consists of two elderly persons, one child, and one mother.

This phenomenon is called the “hollowing-out” of the rural population (Li & Zhan, 2001). It has had a significant effect on the rural areas of Beijing (Chen, Wu, & Zhou, 2006) and leads to a range of social problems (Li & Zhan, 2001; Zhou, 2009; Jiang, 2009; Chen, Wu, & Zhou, 2006). Among other things, it has negatively impacted villagers’ use of farmers’ reading rooms, as well as information and communications technology (ICT).

## LITERATURE REVIEW

Community informatics (CI) offers an important lens through which to assess the use of ICT in rural areas and the Chinese government’s efforts to bridge the digital divide. CI’s emphasis on library outreach and innovative practices aimed at reinforcing communities confronting the digital

age (Williams & Durrance, 2009, p. 1202) are especially useful for understanding the current and future potential of farmers' reading rooms. Defined by Keeble and Loader (2001) as "a multidisciplinary field for the investigation and development of the social and cultural factors shaping the development and diffusion of new information and communications technologies (ICTs) and its effects upon community development, regeneration and sustainability" (p. 3), CI is "an emerging field that encompasses both study and practice (Williams & Durrance, 2009, p. 1202). CI aims to use ICT to enable the accomplishment of community objectives, including bridging the digital divide (Gurstein, 2007, p. 11).

CI analysis prioritizes socioeconomic issues over technical ones (O'Neil, 2002). Simpson (2005) observed, "CI initiatives are a significant component of the response required of rural communities to the growing importance of ICTs in daily life, particularly to minimize the impact of lack of access to ICTs for people subject to financial, structural and cultural constraints." In the U.S., ordinary people can use public-access computers and get help in the rich informatics moments that are possible in branch public libraries (Williams, 2012). As a type of small village library, the farmers' reading room could be seen as playing a similar role in China.

A few scholars have studied farmers' reading rooms in rural areas of Beijing. Zhang and Gao have suggested, for instance, that although farmers' reading rooms have enriched the life of farmers by making books available, problems remain—especially in the areas of policy development, funding, training, and collections development (Zhang, 2011; Gao, 2011). None of these studies examine the ways in which farmers use these reading rooms, or look at what factors influence this usage.

One outside factor that might influence reading room usage is the rise of mobile phones. Mobile phones are popular in underdeveloped countries and regions because they have a portable power supply—they do not need to be plugged into an immovable power source—and can be used by people who cannot read or write ("Real Digital Divide," 2005; Liu, 2012). Not surprisingly, they have become the most important Internet access points for rural netizens in China. The *30th Statistical Report on Internet Development in China* showed that 51.8 percent of new "netizens" in 2012 were in villages and about 60.4 percent used mobile phones to surf the Internet. The percentage using desktop computers and notebook computers were 45.7 and 8.7, respectively. The proportion of new "netizens" in cities using mobile phones to access the Internet was 47.2 percent (China Internet Network Information Center, 2012).

## RESEARCH QUESTION

This study investigated villagers' use of reading rooms and ICT in rural areas of Beijing. It is based on a survey of the residents of eight villages of the Fangshan 房山 District. The authors hope that the results will provide data

that can be used in future plans for the construction of farmers' reading rooms and in efforts to raise the level of ICT access and use in rural areas.

## METHODOLOGY

Between July and August of 2012, we administered a survey and conducted a set of interview-based case studies in eight villages of Fangshan District, a rural area of Beijing with an annual per capita income of ¥13,527 (Fangshan Statistical Information Net, 2012). The villages chosen for this study were Dongzhouge 东周各庄, Xizhouge 西周各庄, Tiankai 天开村, Wuhou 五侯村, Youjiafen 尤家坟, Longmenkou 龙门口, Zhaoge 赵各庄, and Luojiayu 罗家峪. Each village has a permanent resident population ranging from 300 to 700 people, most of whom are engaged in small-scale farming and poultry breeding. We distributed a total of 220 questionnaires, 208 of which were returned, and 186 of which were completed. Table 1 shows the proportion of respondents within each of the four age groups. Table 2 shows the educational level of the respondents (most had junior high school education).

## FINDINGS

### *The Use of Farmers' Reading Rooms by Villagers*

Fifty-four percent of the respondents were aware of the existence of farmers' reading rooms, and 41 percent had visited a room at least once. Most of those who have not visited the reading rooms attributed this to a lack of time. After a hard day's work, they want to go home to rest; they do not have time for reading.

The study also found that usage differed based on educational background—45 percent of those respondents with a high school or higher level of education visited a reading room at least once. Meanwhile, only 14 percent of respondents with a junior high school or lower level of education did so (table 3).

Villagers reported being most interested in books on children's educa-

Table 1. Age Distribution of Respondents

Age (y)	Number of Respondents	Percent
16–35	12	7
36–45	34	18
46–55	52	28
>56	88	47

Table 2. Education Level of Respondents

Education	Number of Respondents	Percent
Elementary school	43	23
Junior high school	97	52
Senior high school	39	21
College degree (or above)	7	4

Table 3. Respondents Who Visited a Farmers' Reading Room

Level of Education	Number of Respondents	Respondents Who Visited a Farmers' Reading Room
Elementary school	43	6
Junior high school	97	14
Senior high school	39	16
College degree (or above)	7	5
Total	186	41

tion and on health and medicine. More than half of the respondents expressed interest in health and medicine; interest in books about children's education ranked second (table 4).

Of the respondents who have visited a reading room, 27 percent want more books to be added to the collections; 20 percent also think that network equipment should be available there. The farmers' reading rooms' construction standards—which mandate that each reading room have at least 1,500 books—lags far below the expectations of the villagers. And only reading rooms in economically stable villages have network equipment; most do not. But villagers in the economically distressed areas would also like to have access to the Internet.

#### *The Use of ICT in Villages*

Villagers rely mostly on their televisions for acquiring information, and with the successful implementation of the Every Village Project 村村通工程, TVs can be found in most households. However, information gotten by way of television is received passively, making it hard for villagers to actively select the information they really need and want. All of respondents to our survey report that they have TV sets in their homes—as opposed to the 39 percent who have computers at home. (Of those that do have computers at home, however, the majority—77 percent—are connected to the Internet.) Most villagers believed that a TV provides all the information they need, and therefore see no need for Internet access. But families with children in middle school or universities often report having purchased computers to help their children study.

Table 4. Book Subjects of Interest to Respondents

Book Subject	Percent
Health and medicine	51
Children's education	15
Computers	10
Agricultural techniques	8
Literature	5
Finances	5
History and geography	2
Cooking	2
Others	2

Eighty-one percent of respondents had mobile phones, and 44 percent report that they surf the Internet using their phones. Currently, the installation fee for a fixed telephone in the rural areas of Beijing is higher than it is in the city. With low prices for the phone and usage, mobile phones have become the most important communication tool for the villagers. In recent years, Internet access with mobile phones has expanded quickly, especially in the villages. Nearly all the mobile phone users below the age of thirty-five access the Internet with these phones.

#### *Some Individual Experiences*

Behind this general picture and the statistics lie a multitude of individual experiences; here are two cases based on the experience of two people interviewed.

Mr. Liu lives in Dongzhouge village of Fangshan District in Beijing; he is sixty-eight years old and has a junior high school education. He has been a farmer for his whole life. Currently, his only income is a monthly national pension in the amount of ¥230. He has no other regular income and relies on support from his son who works in the city. He knows about the farmers' reading room in the village and visited it on one or two occasions after its completion. But due to the limited supply of books and the fact that it does not carry his preferred newspaper, he seldom goes there anymore. He owns a simple mobile phone with no Internet capability, and an old computer that used to belong to his son. Through this computer he can access the Internet at home. But he mostly uses it to play games and occasionally read the news. His reasons for using the computer only infrequently are two: 1) he spends much of his time taking care of his grandson, and 2) Internet access fees are high—there is a flat fee of ¥30 granting twenty hours of usage monthly. He is charged ¥3 per hour if he uses more than twenty hours.

Ms. Li lives in Xizhouge village of Fangshan District in Beijing. She is thirty-six years old and has a junior high school education. She has no paid job. She farms and takes care of her children. Her husband, who works in the city, supports her. When approached by researchers, she indicated that she was not aware of her village's reading rooms, and noted that even if she was interested, she does not have time to read books. She spends what little spare time she has lying on the bed, watching TV. There is one computer at her home, but she seldom uses it due to the high internet access fee. She enjoys playing games and accessing the Internet with a mobile phone, but mainly uses it to send instant messages.

## DISCUSSION

### *The Hollowing-out of the Rural Population*

Our study found that the utilization rate of farmers' reading rooms—as well as computers and the Internet—is still low in the rural areas of

Beijing. This is in large part because of the “hollowing-out” of the rural population and the social and economic problems that follows from this phenomenon. Generally, “left-behind” elderly persons have low levels of education; some are illiterate. They earn some money from farming work and get support from children working in the cities, but their income levels are typically low—42.13 percent have a monthly family income of less than ¥1,000 (the poverty level is ¥625). Thus, approximately 40 percent of the “left-behind” elderly persons in rural China are living below poverty level (Zhou, 2009). Most of these individuals express a limited demand for information. They are not in the habit of reading books and have poor understanding of ICT.

“Left-behind” wives, meanwhile, have become the main source of power in the villages. They face the pressures of managing housework, their children’s education, and caring for elders with low levels of education, with little assistance (Jiang, 2009). After a day’s hard work, most prefer resting to reading books, using the computer, or surfing the Internet. Thus, most express a rather limited demand for information.

#### *Surfing the Internet with Mobile Phones*

The study also found that mobile phones are popular. Most young people use mobile phones to surf the Internet in the rural areas of Beijing. After several years of construction, information technology with Internet access is now available in most villages. Compared to mobile usage, the utilization rate of computers to access the Internet is still low. This is in part due to the high price of Internet access—which costs as much or more in rural areas as in urban areas. Most villagers access the Internet through fixed telephone lines with an Asymmetric Digital Subscriber Line (ADSL) and pay a fixed telephone installation fee of between ¥800 and ¥1,000. A low-grade computer costs about ¥2,000. Add all of this to the monthly Internet access fee of about ¥30 for twenty hours of use, and you can see why few villagers use the network from their home. In contrast, a low-grade mobile phone with Internet access only costs about ¥200, with monthly fees of only ¥5 per 30MB (enough for most villagers’ information demands). There is no doubt that Internet access through mobile phones is the most economic and practical choice for villagers in the rural areas of Beijing. Moreover, people with the ability to listen and speak can use a mobile phone without any special instruction. These are all reasons why mobile phones could be of benefit to people trapped in poverty (Liu, 2012). Surfing the Internet with mobile phones may narrow the digital divide between urban and rural areas.

#### *The Absence of Guidance and Education*

The lack of guidance and education is another reason for the low utilization rate of farmers’ reading rooms, computers, and the Internet in Beijing’s rural areas. Our interviews with villagers revealed that most only use



simple computer and Internet applications—like instant messaging and games. Most villagers have never received any education in how to use the Internet to fulfill broader information needs.

Additionally, the use of part-time employees with a heavy workload elsewhere to staff reading rooms has also contributed to the poor management and low usage rates of the reading rooms (Gao, 2011). Because of inadequate funding, most reading rooms cannot support full-time staff; thus most (about 70 percent) work only part-time. As a result, most reading rooms are closed during the day and open only at night. Funding issues also account for the high turnover of part-time supervisors. Furthermore, most staff members have little or no training in and or knowledge of classification, registration, and preservation of books. (Zhang, 2011).

## IMPLICATIONS

### *Accelerating the Digitization Upgrade of the Farmers' Reading Rooms*

Villagers who use the farmers' reading rooms have their own concerns. They bemoan the lack of variety in the rooms' book collections, the infrequent addition of new material, and an absence of networked equipment. According to the construction standards governing farmers' reading rooms, each post should have at least 1,500 books—and permit for the addition of books at least once a year. But lack of space limits the quantity of books that can be acquired (Zhang, 2011). So although 80 percent of the books in the farmers' reading rooms have been selected by the villagers, collections are limited. Additionally, most reading rooms lack network equipment; only the reading rooms of villages with good economic conditions tend to have it. If villagers could surf the Internet in the reading room, they would be able read whichever electronic books and newspapers they liked. The digitization of the farmers' reading rooms would help solve these problems. The Beijing government intends to focus on digitally upgrading the rural farmers' reading rooms. Using a special platform, reading rooms will provide a convenient digital reading service to the villagers through a cable television network, Internet network, and satellite receivers.

### *Reducing Internet Access Fees*

The high cost of Internet access is another reason why villagers seldom use computers to surf the Internet. The access fee in the rural areas is the same or slightly higher than in the urban areas, but farmers' income in the rural areas of Beijing is much lower than that of urban residents. Furthermore, some villages in the rural areas of Beijing are located in mountainous areas. Because of the high cost of network construction, telecommunications companies claim to be unable to reduce the Internet access fees for these rural areas. Therefore, the government should be encouraged to take appropriate action in this area so that farmers can use the Internet more often.

*Improve Guidance and Education*

Most of the farmers' reading room staff are untrained. Thus it is difficult for them to help rural residents make use of the rooms' resources. Some training programs have been offered in a few of the rural areas of Beijing—for instance, Tongzhou 通州 Districts have held training courses for the supervisors of reading rooms. About six hundred reading room supervisors have already been trained (Gao, 2011). Reading rooms with full-time, professionally trained staff would be more likely to organize reading activities, present lectures about agricultural technology, and help villagers become more habitual readers. More villagers would visit reading rooms as a result.

Many projects that have been implemented in the rural areas of Beijing have also had similar problems; project leaders often pay more attention to funding and equipment than guidance and education. To date, the Every Village Project, Study Benefit People's Engineering, and other projects carried out in the rural areas of Beijing have focused on updating the infrastructure of the rural areas. After several years of construction, most of the rural areas in Beijing have Internet networks in place, but not the necessary measures to help and guide the villagers in using ICT. Therefore, the guidance and training of farmers in using computers and the Internet should be given more attention. Workshops in ICT use could cultivate farmers' information consciousness and improve their information capabilities. The government should show rural "netizens" how to take advantage of more-advanced Internet applications, which would help them obtain information on agriculture and trade.

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