

Practice and Explore on Bridging Digital Divide in Western China

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Respected Chairman, respected leaders and experts, ladies and gentlemen,

I would like to thank the forum for giving me this opportunity to make a presentation on the practice and experience of Pingliang City of Gansu Province in narrowing digital divide.

The theme of the forum this year is Information Technology and Collaborate Development, which makes information technology an important means for development. This has indicated the challenge and the significance of narrowing digital divide. In recent years, the informatization in China has developed quickly, and informatization has become an important issue for national economic and social development. Yet, we should be aware that the development is not balanced. There are digital divides of different degrees between the urban and rural areas, between the East and the West and between the rich and the poor. The gap is in particular huge in the Western region of China. Therefore, the focus of narrowing digital divide is in Western China, and the difficult parts are the less developed areas and rural areas in Western China.

Pingliang City is located in the east part of Gansu Province, where three provinces and autonomous region, Shaanxi, Gansu and Ningxia, join. The city consists of six counties and one district, having a population of over 2.2 million. The majority of the population is farmer. The total output value of the city in 2004 was less than 10 billion yuan. It is a typical under-developed Western area. Since 2001, based on the actual situation, the Pingliang City Party Committee and municipal Government have taken the lead among the Western cities to make informatization a strategic task with the aim of narrowing digital divide and have integrated this task into the overall framework of the city's economic and social development, and have made active and practical promotion in five aspects including informatization and informatization environment creation for government, education, rural areas and enterprises. Through our efforts, the level of informatization in the whole city has been increased quickly, and the effect of informatization in some aspects has been revealed, and the digital divide in education, rural areas, government etc. as compared with the developed areas has been narrowed to a certain degree. In my presentation, I will take the practice of Pingliang City as an example to share with you the major measures taken to narrow digital divide, the realistic choice at present and our experiences.

I. Take the Informatization of Education as the Fundamental Measure to Narrow Digital Divide

The status of education in a region decides its future to a great extent. Education is in a special position in the development of the Western region. Schools are often the centre for knowledge dissemination, teachers normally enjoy higher prestige, and students are widely distributed and have stronger ability to receive new things. For long-run, the real solution for digital divide relies firstly on the improvement of qualification of most of the citizens of a region, while this problem can only be solved through education. Therefore, the combination of educational development with promotion of informatization is either a first-choice breakthrough in narrowing digital divide or the basic access to

solve the digital divide once and for all.

At the very beginning of the informatization work in Pingliang City, we integrated educational informatization into the master plan of informatization promotion strategy, making it our priority to develop the city economy through science and education in an comprehensive way. At present, through the efforts of the city government and implementation of the national programme on distance learning of rural middle and primary schools, the city has made information technology education generally available. Most of the middle schools and primary schools including those in rural areas have access to Internet or the broad band network of China Education Satellite. The overall educational informatization level in the city has basically reached the average level of the developed regions in China, and in some cases even exceeded the average. Most of the middle schools and primary schools have opened compulsory course on information technology, through which the students have not only mastered the basic IT skills but also opened their eyes to the outside world, fostered their intellectual development, increased their confidence and improved their capacity to suit the modern society. The modern distance learning in middle schools and primary schools in the rural area has to a great extent solved the issue of insufficient education resources in the Western region, and enables the teachers and students in the wide rural areas to share qualified educational resources and to gain large quantity of the latest information, as a result the gate to the outside world is open to them. In addition, we have clearly proposed the concept that educational informatization serves agricultural development , and contribution is made to the people by using the force of information . With the advantages that teachers in rural areas are generally trusted by the farmers, and that the coverage of students is wide, and with the leading role of schools in rural areas and full reliance on the existing IT facilities, we try to spread various kinds of practical information to the farmers.

The educational informatization promotion in western China is facing a series of practical difficulties such as financial and human resources. We have always taken structural innovation as the motive, and we have attached great importance to the research and solution of the obstacles that restrict the development of educational informatization. The government takes the coordination role and schools are the major implementing body. We encourage all groups in the society to participate so as to formulate a sustainable educational informatization development system which has the concern of the whole society, multi-channels of financing and is operating efficiently. As the issue of financing is concerned, we have sought out nine sources: the government, the enterprise, bank loan, project fund, fund raised through labour, teachers= contribution, students= contribution, donation of the society and donation of local people. In recent years, the special fund raised for educational informatization is more than 20 million yuan each year, of which, government direct investment makes up only 10%. In 2001, we became the first city in China to build educational informatization by way of leasing for financing. Meanwhile, IT skills are a basic qualification in our city that a teacher, especially young teacher must master, and we have built up a body of teachers who meet the requirement of development and can complement each other at different levels.

The fast development of informatization has narrowed dramatically the digital divide in education between our city and developed areas. For the first time we have really leap over to a new stage of educational development and for the first time we have made a breakthrough in a underdeveloped education resulted from the regional difference and development gap, and children from economically less developed areas like Pingliang are able to study the state-of-the-art technologies and enjoy the convenience and efficiency made possible by information technology, as the children from developed areas do. It is certain that the overall development of educational informatization does not only improve the IT knowledge of the majority of labours in a region in the future, but have also positive and long-term influence on the future development of the city.

II. Take the Solution for Inadequate Information in Rural Areas as the Realistic Choice to Narrow Digital Divide

At present, farmers in the western region of China have limited channels but high cost to obtain information. They can not get timely information on science, technology, policy, market, labour and other areas, so they are forced to rather blindly make decisions in their production and business, and their products do not have smooth channel to the market, and the farmers are normally in an inferior position. Information shortage has become a key factor that restricts the rural development and income growth of farmers. It is a significant, long-run and urgent task to put great efforts on rural information development, to accelerate rural informatization and to change the information imbalance between farmers and other market players.

Since year 2002, Pingliang City has made rural informatization an important part of its agriculture-related task. Local government at different levels take the lead, based on each township with the participation of villages, specialized associations and farmer leaders who lead the fellow villagers to become rich, more than 150 Information Homes for Farmers have been set up, which aim at solving the problem of inadequate information for rural areas. Each Information Home for Farmers is equipped with computer and printer and has access to the Internet and it provides farmers and farmer-related organizations with free information by different means from all directions at various levels.

Way of service

Every Information Home is open during the whole day on the days of rural fair. People can go there and search for information. Meanwhile, an information bulletin is set up to release information on a regular base. In some townships, officials take the opportunity when they go to the villages to distribute useful information to farmers and bring back the feedback of the farmers, or they print brochures of popular information for certain period and distribute these brochures for free. Some townships set up information release points in some villages and distribute information by blackboard bulletin and cable broadcasting. Some of the Information Homes open a hotline for consultation for farmers, and some invite experts and specialists on agricultural technology, agricultural machinery, animal husbandry and sanitation to offer information. Exhibition cabinets are put in the Information Home to display new products and technology for farmers to visit.

Service system

Pingliang City has established the Pingliang City Agricultural Comprehensive Information Net and offers guidance and monitoring to the work of Information Homes. With the Information Home for Farmers as the center, each township establishes an information service station in every village, and an information service point in each villagers=group. One full-time and several part-time staff of rural information are hired in each township so that an information collection and distribution system is built up which is quick to respond to the farmers requests.

Working mechanism

We combine the Information Home for Farmers with the building of grassroots party organizations in rural areas and establishing of the training bases. Electronic education for party members in rural areas is offered through the Information Home for Farmers. Information Home for Farmers is integrated into the daily work of local grassroots government. This suits the transform of township government function after the tax reform, improves the decision-making efficiency and standard of local government and increased the service capacity of local government. The combination of Information Home for Farmers with rural specialized associations helps improve the sensitivity for market of these associations and increased the compatibility of agricultural products. The combination of Information Home for Farmers with rural social development offers practical information on medical service, science and technology, and family planning to farmers. Through the combination of Information Homes for Farmers with educational informatization, the efficiency of the existing information facilities in the school could be improved in an all-round way.

In recent years, Information Home for Farmers has become very popular among people in rural areas because of its flexible service style, quick speed for information spread, reliability of information and free service. It is already very common for farmers to visit the Information Home for Farmers. They have become important collection and distribution centers for rural information in the local area, and they act as a window for farmers to understand the outside world and as a bridge for farmers to go beyond Pingliang.

Meanwhile, our city starts from the actual local situation to actively and steadily push forward the informatization in many other sectors and lays a foundation for narrowing digital divide from all perspectives. We take informatization of the work of the Party Committee and government as the start for narrowing digital divide, and we start from the informatization of the Party Committee for the collaborative development of e-government. We have launched e-government construction covering Party Committee, People's Congress, government and Peoples Consultative Conference, and we have built external government websites and internal network. Trainings on information technology for civil servants under age 45 have been completed. We will also make software environment construction of informatization as a basic step to narrow digital divide and we will try to create a good social environment which is beneficial to the development of informatization from the aspects of working mechanism, policy and regulation and personnel training. In addition, the information infrastructure, e-commerce and informatization of other sectors have all been developing in a healthy way and they are in general adapted to the social economic development of the whole city.

III. Some Experiences in Narrowing Digital Divide

The practice of Pingliang proves that it is completely possible to gradually narrow the digital divide between East and West and to turn digital divide into digital opportunity. It is also possible to achieve the good interaction and collaborative development between informatization and local social economic development and to create conditions and increase motives to realize the regional development. We have gained the following experience:

1. Narrowing the digital divide should be included into the master planning of regional development.

Speaking from its nature, digital divide is still a problem of underdevelopment. Therefore, it must be a long-term process to narrow digital divide. We have to have an overall point of view to make a long-term framework of strategy. On the one hand, through the fast economic development as well as educational development, we should increase the information infrastructure and improve the popularity of information and communications technology so as to create conditions with which more people in a region can have access to information on equal footing and at lower cost. On the other hand, we should follow the principle of having the foothold on present situation and with proper lead vision, and start from the actual situation, take application as the lead, pay attention to sharing and integrating of various resources, and focus on the construction of the supporting system for the regional informatization development. We should push forward the informatization based on selections at different levels step by step. Informatization should become an accelerator for social economic development. With the help of information technology, traditional industries could be up-graded and transformed to entitle the west region power for development.

2. To find the starting point for narrowing digital divide based on the actual situation and in a scientific and careful way.

Digital divide can be found in many aspects: government, rural areas, education and all aspects in the social economic development in the western region. Currently, the preparation capacity for informatization in the west is apparently not sufficient. It is neither realistic nor necessary to eliminate the digital divide completely. Therefore, we have to make an objective analysis of the regional development situation and take the educational standard, income and awareness of information of the majority into consideration. We should search from macro point of view for an effective solution to

handle factors that restrict informatization, such as awareness, human resources and financial resources, and to find out comparative advantages, choose the sectors or industries that need urgent informatization support, and can gain profit soon but cost less. We concentrate our human and financial resources on these sectors and industries and try to make the breakthrough with stronger efforts so that informatization can not only fully meet the demand of the social economic development, but also provide informatization support and guarantee for the future social economic development.

3.To establish a long-term mechanism for narrowing digital divide through measures suited to the local conditions

In the western region, government is normally the advocate for something new, to practice and push it. While the government works on the informatization of itself and becomes a good example for the whole society, it should also shoulder the responsibility of pushing the tasks related to regional informatization and play its role in a practical way. On this basis, the role of market mechanism should be played to motivate and attract schools, enterprises, other organizations and citizens to participate in the informatization construction, and finally an informatization promotion mechanism can be formed with the government as the leader, and with the participation of the society and good interaction. At the same time, in narrowing digital divide, the attention and support from the party and government leaders, especially from the major leaders, should be emphasized as this is a universally significant experience to the success.

4.To pay attention to the effective combination of ICT and traditional means in the process of narrowing digital divide

The educational standard of farmers in the western region is in general not high, so it is difficult to enable them with information technology skills through training. In addition, the current status of rural development determines that it is impossible to popularize information and communications technology in the rural areas on a large scale. Under such circumstance, to narrow the digital divide in rural areas, we have to concentrate on the development and application of information resources and put emphasis on distribution of practical information to farmers. On the one hand, information and communications technology should be used extensively in the step of acquiring and developing information resources and the advantages of convenience and quickness of ICT should be brought into full play. On the other hand, attention should be paid to the various traditional methods in the step of information collection and distribution, and low-cost information distribution methods and channels which are welcomed by the farmers should be selected so that the effectiveness of information distribution can be demonstrated.

Dear leaders, experts, ladies and gentlemen, Pingliang City has made some achievements in narrowing digital divide. However, what we have done is just some initial and research effort. It is still a long way to go to narrow the digital divide. We welcome all leaders, experts and friends present here to raise your comments and suggestions. We also sincerely welcome you to visit Pingliang and give guidance to our work. At the end of my presentation, I would like to propose a few suggestions: First, let=s all attach importance to the issue of digital divide in the western region of China and we should join hand in hand to create conditions and make our efforts to enable the huge number of people living in the western region of China to follow the pace of information society; Secondly, various methods including project implementation, investment, training and personnel exchange should be taken in order to increase the support to the western region of China in narrowing digital divide and to provide a good external support in narrowing the digital divide in an all-round way; Thirdly, Special attention should be paid to the development of rural and educational informatization of the western region in China. Rural informatization and educational informatization are the two strategic focuses for narrowing digital divide and therefore should be pushed forward with practical measures.