

## *Original Paper*

# Research on the Internet Capital and Its Promotion of Rural Teachers in Western China from the Perspective of New Digital Divide

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### **Abstract**

*Teachers are the key to education formalization. The study found that the Internet capital of rural teachers in western China is obviously insufficient. Compared with teachers in developed areas, there are significant differences in network facilities, information technology knowledge, online learning and information literacy. The backwardness of network facilities and the lack of information technology knowledge are the important reasons for the lack of Internet capital of rural teachers in western China. Therefore, it is necessary to improve the Internet capital of rural teachers in western China from the aspects of network facilities construction, network knowledge transfer, online learning support and online learning reflection. The proposal of these measures has certain reference value for promoting the improvement of rural teachers' Internet ability in western China and narrowing the gap with teachers in developed areas.*

### **Keywords**

*western rural teachers, digital divide, Internet capital*

## **1. Proposing the Problem**

“Internet +” has become the basic form of education formalization in China, and it is also an important force to promote education reform and development. Under the new background of “Internet + education”, learning based on Internet technology has become the main way for people to learn in the new era. Internet capital refers to the ability, experience and knowledge that people acquire, share and use network information resources, including network facilities, network knowledge and network literacy. Since the 1990s, the information technology with computer technology as the core has been developing continuously in China’s education formalization, showing a new digital fatigue phenomenon accompanied by education formalization. Digital divide is a new social gap phenomenon in the development of information society, and it is also an important problem in the process of internationalization in modern society. It makes people differ in information acquisition, processing

and application, and also makes them different in participating in information exchange and utilization. The existence of digital divide Mennonite has hindered the process of educational information construction in China and affected the realization of educational equity in China.

Western rural teachers are the weakest, the most special and the most important group in the construction of educational formalization in China. Under the background of formalization, western rural teachers are not only the executors and builders of rural education formalization construction, but also an important force that cannot be ignored in the development of rural education formalization. However, in the reality that the economy, culture and education in the western region of China is relatively backward, there is a clear gap between rural teachers in the western region and teachers in developed areas in terms of network facilities, information technology knowledge, online learning and information literacy. Therefore, it is of great significance to explore the current situation and influencing factors of Internet capital of rural teachers in western China for narrowing the gap between rural teachers in western China and teachers in developed areas in the field of educational formalization. Guided by the theory of ‘ new digital divide ‘, this study understands the current situation of Internet capital of rural teachers in western China and puts forward suggestions to improve the Internet capital of rural teachers in western China.

## **2. Theoretical Basis and Concept Definition**

### *2.1 Theoretical Basis*

The concept of “digital divide” was first proposed by American scholar Edward Griffin in the 1980s. He believes that in the digital age, due to the existence of the digital divide, there is an insurmountable gap between the members of the information society and the vulnerable groups in the economy and society. Subsequently, American scholar Gordon Alden Sand berg put forward the concept of “digital generation” and the concept of “digital divide”. In the 1990s, with the popularization and development of the Internet on a global scale, the “digital divide” gradually evolved into a “new digital divide”. The so-called “new digital divide” refers to the inadequate, untimely and unbalanced use of new technologies such as networks and information and communication technologies by groups that are disadvantaged in terms of technology and society. The current academic circles on the “new digital individualize aspects”: (1) The connotation and manifestation of the new digital divide academic community have different understandings of the connotation of the new digital divide. Some scholars believe that the new digital divide refers to the differences in the use of the Internet, the ability to obtain network information and the ability to use information technology in the information age. Some scholars believe that the new digital divide refers to the fact that vulnerable groups do not have the basic ability to use the Internet to participate in social activities, resulting in their inability to access and use Internet resources and opportunities to participate in social activities, thus becoming “second-class citizens” of social development; some scholars believe that the new digital divide refers to a social phenomenon in which vulnerable groups cannot successfully participate in social activities and obtain

corresponding benefits due to the lack of corresponding social capital in using the Internet to participate in social activities. (2) The relationship between the new digital divide and microeconomics development: American scholar bowls pointed out that the “digital divide” phenomenon is a global phenomenon, which can be seen in almost everywhere in the world, and the phenomenon has its economic and social roots. He pointed out that in the era of economic globalization, due to the differences in the level and level of economic development in countries around the world, each country will have a new digital divide. He believes that the new digital divide is not a phenomenon of individuals or minorities, but a social phenomenon. Chinese scholars have also studied the relationship between the “new digital divide” phenomenon and economic development. For example, Chaos Yong and others believe that the imbalance of economic development leads to the phenomenon of “new digital divide”. The generation of “new digital divide” is based on the three aspects of national economic development level, cultural literacy level and personal cultural quality level. These three aspects interact and restrict each other.

### **3. Concept Definition**

Internet capital refers to the mastery and use of Internet technology by individuals or groups, including Internet skills, knowledge, resources, etc. Internet skilful operation skills of the application, such as using search engine, using instant messaging software, sending e-mail, etc.; knowledge refers to the ability of individuals to search and extract some information resources on the Internet; resources refer to the ability of individuals to acquire knowledge, information and apply them to life through the Internet. At present, Internet capital research mainly focuses on two dimensions: network capability and network resources.

The acquisition of Internet capital can be divided into active acquisition and passive acquisition. Active access includes the application of the Internet in personal learning, work and life, as well as the use of the Internet in social interaction. Passive access refers to the unconscious use of the Internet in daily life, such as browsing news, watching videos, etc. As the implementer of school education activities, teachers’ Internet skills and knowledge presented in their daily teaching process are important aspects of their network capital improvement. Therefore, teachers’ mastery of Internet skills and knowledge has become an important factor affecting their network capital improvement.

### **4. Current Situation and Problems**

#### *4.1 Insufficient Network Coverage and Poor Network Speed Quality*

At present, there are still some western rural schools that have not yet achieved full coverage of the network. Although most schools have achieved full coverage of the network, the network quality is poor and the network speed is not good. The school is divided into three parts, the network speeds smooth area, the network speed more smooth area and the area without network. The school hardware equipment is complete, and the only disadvantage is that the network is not good. These conditions not

only affect the development of information-based teaching of rural teachers in western China, but also are not conducive to the improvement of information literacy of rural teachers in western China. It can be seen that the network problems in the western rural areas need to be improved.

#### *4.2 The Low Utilization Rate of High-tech Teaching Facilities Causes the Waste of Resources*

In addition to the network quality affecting teachers' information-based teaching in western rural schools, the school's information-based hardware facilities also affect teachers' information-based teaching and the application of information technology. Based on the analysis of the status quo, at present, the facilities are basically perfect, but the utilization rate is low, resulting in a waste of teaching resources. In the interview, it was learned that the classrooms equipped with high-tech equipment and facilities were almost idle. Generally, they were only opened to the outside world in the case of open classes and routine inspections. The rest of the time was mostly idle. Some teachers were afraid that they would not use or improper operation would damage the machine and take responsibility, so the utilization rate of some advanced equipment was low. This is also one of the reasons that hinder the improvement of teachers' information literacy and the improvement of the quality of rural education in the west.

#### *4.3 The Western Rural Teachers Lack Their Own Information Literacy Development Plan*

Under the background of the current information age, information technology and information equipment are updated very quickly. Only by constantly updating the concept, transforming information-based teaching methods and mastering new teaching methods can western rural teachers improve their information literacy level. According to the questionnaire survey and interview, it is known that the western rural teachers' understanding of formalization and subjective thinking is in a good state, but there are still some teachers who are not clear about the understanding of educational formalization, do not understand the importance of information-based teaching, and lack the awareness and initiative to improve their own information literacy. In the interview, it is learned that teachers' understanding of educational formalization mainly stays at the level of convenience and speed, and there is no profound understanding of the changes in teaching methods and teaching concepts, and the improvement of teaching quality.

#### *4.4 The Level of Use Ability is Different, and it is Difficult for Teachers with Low Education to Operate*

Due to the structural imbalance of rural teachers in western China, it is not only manifested in the imbalance of age, professional title and other aspects, but also in the imbalance of cognition, and in the use of information, the ability is uneven. In the interview, it was learned that some western rural teachers' use of information technology remained on the surface, lacking in-depth excavation and expansion. Especially for older teachers and some teachers with relatively low academic qualifications, it is difficult to use advanced audio software and audio and video processing. In the interview, I learned that the teacher is older, and it is difficult to master the most basic information technology. Some teachers with lower academic qualifications are not skilled in mastering the basic information technology. Although they have certain operational skills, they have difficulty in learning new skills. To a certain extent, it has lowered the level of information literacy of rural teachers in the west.

## 5. Discussions and Recommendations

“Internet + education” is an important direction for the development of educational formalization. In the era of “Internet +”, the Internet with information technology as the core is profoundly changing people’s production, life and learning methods, and promoting the rapid development of social productivity. At present, the overall level of Internet capital of rural teachers in western China is still relatively low, and there is a clear gap compared with developed regions. However, this is not a problem brought by the development of the Internet, but a problem caused by the imbalance and inadequacy of urban and rural education formalization in the process of education formalization in China. Therefore, to narrow the gap between urban and rural education formalization, we must focus on improving the level of Internet capital of rural teachers in western China. This requires the joint efforts of the government, enterprises and individuals to find an information development path suitable for rural teachers in the western region in the “new digital divide”. Education formalization is a huge systematic project, which requires the joint efforts of the government, enterprises and individuals.

First of all, the government should increase financial investment in education formalization and provide Internet infrastructure conditions for rural schools and teachers; on the other hand, enterprises should provide high-quality network services and technical support for rural schools, such as Center’s provision of high-quality Internet resources for rural schools.

Secondly, enterprises should provide online learning support services for rural schools and teachers. In the “Internet +” era, online learning has become a mainstream learning method. To improve the online learning ability and level of rural teachers in western China, it is necessary for enterprises to further strengthen the online learning support services for rural school teachers, so as to promote them to better carry out online learning.

Again, the west extremely improves their own Internet capital level. Western rural teachers themselves should fully recognize the opportunities and challenges brought by the development of the Internet, and actively learn and use network knowledge and technology. In the process of the development of educational formalization, the “digital divide” phenomenon is not common in every region, every school or even every teacher. It is closely related to the level of regional economic development, the historical and cultural background of schools, and the information literacy of teachers. Therefore, western rural teachers should make full use of Internet resources to carry out online education and teaching activities, and strive to improve their Internet capital level.

Finally, individuals should establish a sense of lifelong learning. In the process of educational formalization development, western rural teachers should establish a sense of lifelong learning and actively carry out self-improvement and renewal. In order to truly improve their Internet capital level, they must constantly update their knowledge reserves and cognitive structure, and actively participate in online education and learning activities. At the same time, it should also clarify its position and role in online learning activities.

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