Chapter 9
Digital Libraries in the Western Region of China

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ABSTRACT
The rapid technological development of the 21st century brought with it the rise of the digital library, which has become a global trend in university libraries. This chapter examines the construction and development of university digital libraries in western China. By investigating the current samples, consisting of 100 universities in the region, we try to reveal problems which arise during the construction process and discuss the future directions of university digital libraries in western China.

BACKGROUND AND ISSUES
With the rapid development of modern digital technology and network technology in the 1990s, the digital library (DL) evolved from the traditional library (Li & Zhu, 2001). In 1990, researchers at the University of Michigan put forward the concept of a “Digital Library” for the first time. Since then, the development of the digital library has experienced three stages of development: digital library 1.0 (1995-2005), digital library 2.0 (2005-2010), and digital library 3.0 (2010-present) (Noh, 2012). The development of digitization at university libraries became a global trend, beginning with American research and exploration in this field led by the government in the early 1990s. China started the construction of university digital libraries motivated by related cooperate projects. In July 1997, the China Pilot Digital Library Project (CPDLP), which was built by Beijing University, Tsinghua University, Shanghai Jiao tong University, and South China University of Technology, is a sign of the construction of China’s digital libraries, and also the beginning of the formal participation of Chinese universities
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in digital library construction (Xiao & Shen, 2000). In 2002, the establishment of the China Academic Digital Library Alliance (CADLA) further promoted the organized development of university digital libraries in China. From 2006 to 2010, under the national macro strategy layout, the focus of China's digital library construction became the comprehensive construction of micro-level information systems and the improvement of the digital library functions. Since 2011, the construction of China's digital library in colleges and universities was implemented step by step, and the goals were user-centered service, individualization, and specialization.

In this context, we investigate the current situation of the development of university digital libraries in western China, reveal the existing problems in the construction process, and then put forward countermeasures. In addition, the development direction of university digital libraries is the key issue we study in this chapter.

LITERATURE REVIEW

University libraries in China have been promoting digital libraries for more than 20 years, also promoting the university as a core strength in digital library research, and playing a very important role in promoting the development of digital libraries. Since 1987, domestic researchers have conducted a series of studies and discussions which can be divided into the two aspects of theory and practice on subjects such as intellectual property, personalized service, resource integration, data mining, performance evaluation, information resource construction, digital reference service, customer service, research, and more. In theoretical research, Zhang (2001) divided the construction of a digital library into a three-generation paradigm which was continuously progressive and deepening: the first generation is a digital library based on digital resources, the second is the digital library based on integrated information service, and the third is the digital library based on user information behavior. The study of application mainly focused on the construction technology of digital libraries and services. From the technical aspect, Wang (2007) listed the content of digital library network information service systems, stressing how the university digital library changed from the model of cross-search retrieval to intelligent management in order to meet the demands of information service for education users, and constructing an evaluation model for network information services in university digital libraries. From the service aspect, Li (2010) analyzed university digital library user satisfaction, proposed the main factors affecting satisfaction, and constructed an evaluation model.

Thus far, research on digital libraries in the western region of China has mainly focused on three aspects. First, researchers have studied the ideas for the development of digital libraries in the western region. Among this research, some papers have analyzed the overall status of digital library construction in the western region. For example, Liu & Ye (2013) analyzed the construction, distribution, service, etc. of western public libraries’ digital resources by pursuing a networked investigation on the present construction situation of public library digital resources, and collecting papers, books, and other related information. Second, researchers have studied the key issues of university digital libraries, such as information resource construction, information service models, information security, role and function of library alliances, and reference consulting services. For example, Zhao (2008) analyzed the current status of digital information services at libraries in western minority areas and proposed a user-centered service model, a practice-oriented resource construction model, and a digital information service model through the building of an open system for the network information exchange center. Third, researchers