



# Open Education Empowers the Construction of Learning Cities Based on Internet Plus

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**Abstract.** The open education based on Internet Plus provides the necessary foundation for the construction of a lifelong education platform, helps the Open University to build a “lifelong education platform with advanced technology, powerful functions and universal service”, and increasingly becomes an accelerator for the construction of a learning society. Relying on the Internet Plus, open education is conducive to integrating various educational resources, building a platform for the construction of service-learning cities, and improving the high-quality development of learning cities.

**Keywords:** Internet Plus · Open education · Learning city construction

## 1 Introduction

In 2015, Chinese President Xi Jinping proposed in a congratulatory message at the International Conference on Informatization in Education to “build a networked, digital, personalized and lifelong education system, and build a learning society where everyone can learn everywhere and anytime” [1]. The trend is to implement “Internet Plus-based education” and expand the coverage of high-quality educational resources by means of informatization to promote the balanced development of education. This paper proposes that open education relying on Internet Plus is conducive to integrating various educational resources, building a platform for the construction of service-learning cities, and discussing the implementation mechanism of open education-enabled learning city construction of Internet Plus, in order to learn from and inspire the reform of open education service models and the construction of learning cities.

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## **2 Internet Plus-Based Open Education Helps Open University Build “A Lifelong Education Platform with Advanced Technology, Powerful Functions and Universal Service”**

“Internet Plus-based open education” aims to use information technology to connect various educational institutions, build a lifelong education platform for universal service, and provide diversified learning resources for each individual with flexible learning methods by virtue of its three-dimensional education network covering urban and rural areas. “Internet Plus-based education” is a new stage in the development of education informatization, and has evolved from the integration of technology and education to a stage where technology is driving innovation in education systems. “The Internet-based open education will greatly expand the coverage of education, the main body of school running tends to be diversified, the main body of learning is no longer limited to specific groups, the transmission of learning resources crosses the time and space restrictions, and the provision of educational services for learners of different ages and occupations will be more personalized [2]. The integration of the Internet and open education will further promote the construction of China’s lifelong education system and learning society. The “National Open University Comprehensive Reform Plan” clarifies that by 2025, it will gradually build “a lifelong education platform with advanced technology, powerful functions and universal service, leading the good and rapid development of ‘Internet Plus based education [3]. The Internet Plus-based open education provides the necessary foundation for the construction of lifelong education platforms, and increasingly becomes an accelerator for the construction of a learning society.

### **2.1 Open Education Provides Learning Opportunities Anytime and Anywhere with the Help of Advanced Information Network Technology Platforms**

Xi Jinping, General Secretary of the Communist Party of China (CPC) Central Committee, delivered an important speech at the National Education Conference, putting forward a proposal of “four accelerated construction”, that is, “to accelerate the construction of education that accompanies everyone’s life so that everyone could study anytime and anywhere, to accelerate the construction of education that is equal to everyone, to accelerate the construction of education that is suitable for everyone and meet individual needs for education, to accelerate the construction of open and flexible education and meet diversified needs for education” [4]. The “four accelerated constructions” have clarified requirements for promoting a universal lifelong learning and accelerating the construction of a learning society. Through the construction of a public service system supported by a lifelong education platform, Internet Plus-based open education enables learners to cross time and space restrictions, more easily access high-quality educational resources, and flexibly carry out learning independently. With the help of the lifelong Internet Plus-based open education, it can enable the general public and students to enhance their humanistic feelings in the colorful and popular open education, create an elegant and practical open education environment and an inclusive and atmospheric open education atmosphere, provide learners with diversified, personalized and fragmented education service content suitable for their learning needs, and build a free,

open, grounded and popular learning city construction model. And then, a high degree of integration between open education and learning-oriented city construction will be achieved. Many regions have achieved remarkable results by actively exploring the Internet Plus-based open education strategy. For example, Shanghai Open University, Dalian Open University, etc. provide network learning resources for vulnerable groups such as prisoners and disabled students, provide academic education and education training, and implement the strategy of rural revitalization. Many open universities in many regions have explored the talent training model of Internet Plus-based open education for special groups and new rural construction.

## **2.2 Internet Plus-Based Open Education Helps the Construction of “Four Platforms” of the Open University**

Open education has been accompanied with the rapid development of modern information technology, which provides various forms of technical and means support for the development of the former teaching. Internet Plus-based open education helps the transformation and upgrading of the Open University, effectively uses the latest information technology means such as artificial intelligence, 5G, big data, blockchain, cloud computing, big data, etc. to build active learning platforms such as “online education”, “flexible education”, “lifelong education”, etc., and uses the micro-courses provided by these digital platforms to combine the practice base and digital virtuality and realize the further integration of education and teaching and information technology. The Outline of the National Medium- and Long-term Education Reform and Development Plan (2010–2020) states that the information technology has a revolutionary impact on education development. Open education, as a new type of education model in today’s era, fully relies on modern information technology means to help learners use various platforms and online learning resources to learn, which not only optimizes the supply of educational resources, but also enhances learning autonomy and sharing.” Relying on the Open University to gradually establish a set of perfect public digital learning resource platforms for all citizens, in the construction of a lifelong education system and learning society, the Open University should assume the responsibility of the hub of education service supply, as a cross-border linker (Boundary spanners), vertically connect the branches of open universities around the world, horizontally connect the educational resource supply organizations in various regions, break the education service supply, and achieve multi-level and multi-dimensional education resources effectively gathered and shared. At the same time, it is suggested to rely on the lifelong education platform to build a diversified and three-dimensional education resource supply network [5], and establish its own dominant position in the supply of lifelong education services, so as to achieve the goal of education reform and development of the open university service learning society.

### **3 Analysis of the Path to Construct an Open Education-Enabled Learning City by Internet Plus**

#### **3.1 Learning City is an Important Cornerstone for Establishing and Improving a Lifelong Learning System and Moving Towards a Learning Power**

“China Education Modernization 2035” puts forward the strategy of realizing the education power, and it is necessary to establish the overall goal of building a learning country to realize the modernization of education. The establishment of a learning city is the fundamental need to build a learning country. Learning cities are an important cornerstone for establishing a sound lifelong learning system, moving towards a learning power and accelerating the modernization of education, and is also an important part of global action to implement the 2030 Agenda for Sustainable Development. In 2020, the Party Central Committee and the State Council continued to emphasize the task of “improving the lifelong learning system and building a learning society” in the “The 14th Five-Year Plan and the Long-term Goals for 2035”, and the construction of learning cities entered the overall development layout of the national strategy.

#### **3.2 Open Education Relying on the Internet Plus is Conducive to Integrating Various Educational Resources and Building a Platform for the Construction of a Service-Learning City**

The Opinions of the Ministry of Education and Other Seven Departments on Promoting the Construction of Learning Cities points out that one of the important tasks of learning cities is to “coordinate the development of social learning resources and promote the open sharing of learning resources [6]. To carry out extensive cooperation in open education of Internet Plus, it is necessary to change the past model of independently providing educational services, integrate existing educational resources, try new public service paths, and explore mechanisms for resource open sharing and mutual recognition of credits. Also, it is required to give full play to the advantages of the Internet in the teaching and support service model, and advocate students’ independent learning, team learning, and personalized learning. In terms of teaching methods, it is suggested to follow the purpose of service first, and use Internet thinking to innovate professional construction and curriculum teaching platforms. Open education institutions need to fully consider the learning characteristics of the Internet Plus era to meet the fragmented and multi-terminal learning needs of learners.

The credit bank is the starting point for the construction of learning cities, and the credits are converted and accumulated with different learning outcomes, broadening the enrollment channels of higher education and ensuring that every individual enjoys the right to lifelong learning. The National Open University actively promotes the construction of credit banks, Shanghai Open University has established the first provincial credit bank in China, and the lifelong learning “overpass” has been built for learners [7]. A system of certification, accumulation and conversion of learners’ learning outcomes created based on the credit system is the essence of the credit banking system. It is suggested to maximize the openness of the education system in time and space, promote individual lifelong learning and build a learning society. And then, everyone can enjoy the

right to lifelong education. The credit bank promotes the connection and communication between different types of learning outcomes, and plays a positive role in promoting the construction of learning cities and building an education system for lifelong learning for all. Internet Plus-based open education helps all kinds of educational resources to integrate in society, provides unlimited possibilities for serving the lifelong learning of the whole people and the popularization and popularization of higher education, thus laying a solid foundation for the construction of learning cities and high-quality development.

## **4 The Implementation Mechanism of Internet Plus-Based Open Education to Empower the Construction of Learning Cities**

In order to form a learning society that can be learned everywhere, can learn all the time, and everyone can learn, ensure that everyone enjoys a fair opportunity to receive education, and make the achievements of education development more and more equitable to benefit all the people, it is necessary to face the main contradictions in today's education, solve the contradiction between the original national education system that cannot adapt to the people's high-quality, flexible and personalized lifelong learning in the new era, use modern information technology to accelerate the reform of talent training models, and accelerate the promotion of open education systems and mechanisms with the Internet Plus as the focus of efforts.

### **4.1 Focusing on Internet Plus to Promote the Reform of Open Education Service Models**

Guiding Opinions on Actively Promoting the "Internet +" Action (GF [2015] No. 40) Proposed to "explore new ways of providing educational services, and accelerate the transformation of higher education service models" requirements. In China, "open education" generally refers to the continuing education carried out by specific institutions such as open universities using a variety of information technology means. Open University is a new type of open university that meets the needs of society, pays attention to the progress of the whole people, and promotes educational equity, with the mission of promoting lifelong learning as the mission, with modern information technology as the support, and with the characteristics of "Internet Plus" [3]. At present, it is a critical period for the gradual transformation of the education and teaching process from information technology optimization to the reform of the education system, and it is urgent to explore the renewal of educational concepts, model reform and system reconstruction, and promote the innovative model of new teaching and learning. At the same time, it is necessary to give full play to the advantages of information technology and distance learning, and build a ubiquitous, high-speed and convenient digital learning environment for lifelong education. Relying on the mature distance education network, it is required to effectively use the mainstream new media platform, increase the update and sharing of teaching resources, and establish a fast and convenient bridge of information transmission, course push and exchange and interaction between teachers and students. In order to achieve its development goals, Open University needs to face up to current

problems and challenges, actively make good use of its unique advantages, and explore new ways of providing educational services with the needs of learners as the center.

Jing Degang, president of the National Open University, also pointed out when talking about the transformation and development of the Open University that the future development direction of the Open University is to “build an education system that serves the lifelong learning of the whole people, and to serve the national strategy, industrial development and lifelong education as the direction of running the school [8]. Through the establishment of community universities, universities for the elderly, non-degree technical training and other forms of education, the Open University provides rich educational resources and education supply services for the personal growth of learners and related social needs, creates a powerful and wide-ranging digital learning port, promotes the development of local learning cities, and provides extremely powerful educational service support momentum in the transformation of a lifelong learning system that serves the whole people. Under the background of “Internet Plus”, learners have put forward new requirements for learning content, learning forms, learning methods, etc. Open universities should make full use of the advantages of “skynet, ground network, and human network”, fully integrate and gather various high-quality educational resources in society, and innovate the form of open education and improve the quality and level of running schools with a more open, flexible, high-quality and convenient school-running concept and model. During the “14th Five-Year Plan” period, China’s education modernization will rely on “Internet Plus” technology to build an open education digital management service platform, policies and systems that match the “Internet Plus”, achieve breakthrough development, and ultimately realize the integration of open education teaching, management and evaluation, so as to achieve an open education model of digital education sharing and offline and online interaction.

#### **4.2 Taking the Internet Plus as the Focus to Promote the Open Education Service Skills**

Learning cities are built on the basis of networking and informatization. Moreover, with the wide application of modern network technology and the construction of a public service platform for education and training, the autonomization and individualization of individual learning will be achieved and the wide sharing of educational resources will be promoted. It is hard to implement the construction of learning cities and learning societies without the foundation of networking and informatization and a unified public service platform for regional education and training. In order to build a learning city that is people-oriented, takes the improvement of personnel quality and the development of various human resources as the core, and actively cultivates the innovation and entrepreneurship ability, practical ability and learning ability of the majority of citizens, we need to carry out various education and training contents and activities, build a ubiquitous education and training public, and provide people with knowledge lectures and various, Various professional skills training courses, etc., provide expert consultation and professional training for the professional growth of all citizens. This platform is not only a contact channel for people to work and learn in the offline real environment, but also a platform for various online learning, providing a full range of services for people’s reemployment, post-vocational education and career repositioning.

“Internet Plus” technology helps the integration and development of open education, vocational education, continuing education and other types of educational resources, and a relatively complete integration development system and a scientific talent training model will be formed. Then, education and teaching means, school-running concepts, and teaching information resources can be mutually beneficial and shared. Internet Plus based open education can empower every learner, provide the most learners with lifelong growth and progress, continuous development and much-needed learning opportunities, and strive to create a cultural atmosphere of lifelong learning and growth by providing workplace learning, community education, education for the elderly and other forms, and further promote the sustainable development of learning cities.

### **4.3 Internet Plus-Based Open Education Empowers the Construction of Learning Cities**

The learning cities, which are a social learning system with “city” as the scope and with the Internet Plus information technology as the support, could promote the construction of learning organizations, learning communities, learning individuals and learning governments so that the construction of learning cities truly becomes an indispensable power engine and strategic resources to boost the urban development and plays a key role in retaining talents, attracting talents, building a livable city and achieving a wonderful life. An effort should be made to conduct the construction of learning cities with different modes and various contents and innovate the model of learning city construction by advantage of features of the Internet, including popularization, personalization and low threshold.

In the construction of learning cities, the lifelong education platform formed by open education with the help of Internet Plus can enable learners to go through the restrictions of time and space and carry out independent learning more quickly and efficiently; at the same time, it can gather more and better educational resources to meet the diverse and personalized learning needs of learners. Learning cities emphasize facing everyone, and open education actively promotes the popularization of higher education, and both are committed to providing all kinds of people with the learning opportunities they need for their lifelong development.

## **5 Conclusion**

In short, Internet Plus based open education uses modern information technology such as multimedia networks to create a lifelong education platform, break through the limitations of classroom teaching time and space, enhance the brand value of open education, meet the needs of lifelong learning for the whole people, and continuously empower the high-quality development of learning cities.

**Authors’ Contributions.** This paper is independently completed by Pinyi Zhu.

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