

## The Connotation and Reflections on Future Learning Centers

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### Abstract

The Future Learning Center represents an important initiative and strategic innovation for China to enhance education quality and ascend to a world-leading position. However, both theoretical research and practical exploration in this domain remain in their infancy. Therefore, to further clarify the conceptual connotation of the Future Learning Center, this paper traces the theoretical origins of four closely related concepts: the Library Learning Center, the University Learning Center, the Future School Learning Center, and the Future Learning Center itself. It elucidates the close academic connections among these four concepts and their integrated, co-evolving practical development, and conducts a differential analysis from four perspectives: development process, leading institutions, target education stages, and relationship with libraries.

### Full Text

#### Conceptualizing Future Learning Centers

##### Abstract

Future Learning Centers represent a crucial initiative and strategic innovation for China to enhance educational quality and ascend to world-class status. However, both theoretical research and practical exploration remain in their nascent stages. To further clarify the conceptual connotations of Future Learning Centers, this paper traces the theoretical origins of four closely related concepts—Library Learning Centers, University Learning Centers, Future School Learning Centers, and Future Learning Centers themselves—elucidating their close academic lineage and intertwined practical evolution. The paper further conducts a comparative analysis across four dimensions: developmental trajectory, leading institutions, target educational stages, and relationship with libraries.

**Keywords:** Future Learning Center; Learning Center; Library; Future School; Educational Transformation

## 0. Introduction

From the ancient village schools (*xiangxu*) and private tutoring schools (*sishu*) of the Xia-Shang and Spring-Autumn periods to the standardized traditional schools of the first and second Industrial Revolutions, and now to the Future School conceptions of the fourth Industrial Revolution, school education models have undergone multiple transformations. To reform traditional talent cultivation paradigms and explore new models for nurturing talent in the new era, China's Ministry of Education Higher Education Department has proposed “exploring and advancing Future Learning Center pilots, leveraging the strengths of university libraries, integrating diverse learning resources across campuses, and utilizing new-generation information technology to create new types of grassroots learning organizations that support learning transformation.”

As attention has gradually increased, “Future Learning Center” has evolved from a vague, emerging term into a hot topic in educational research. Yet what exactly constitutes a Future Learning Center? A survey of higher education learning support centers reveals that learning centers in the United States, United Kingdom, Australia, and Canada operate under over 140 different names, including Learning Centers, Writing Centers, Learning Resource Centers, and Academic Support Centers[1]. How do Future Learning Centers differ from these seemingly similar yet distinct concepts? Since theoretical research and practical exploration on Future Learning Centers remain in their nascent stages, these questions warrant further investigation. Therefore, this paper traces the theoretical origins and conducts a comparative analysis of four closely related concepts—Library Learning Centers, University Learning Centers, Future School Learning Centers, and Future Learning Centers—to further clarify the conceptual connotations of Future Learning Centers.

## 1. Theoretical Origins of Learning Centers

To clarify the evolutionary trajectory of Future Learning Centers, this paper examines four closely related concepts—Library Learning Centers, University Learning Centers, Future School Learning Centers, and Future Learning Centers—by systematically reviewing their developmental histories and conceptual definitions, and analyzing their intrinsic connections.

### 1.1 Library Learning Centers

As early as the 1970s, some university libraries were named “Learning Centers”[2], but it was not until the 21st century that libraries gradually transitioned from a “reader-centered paradigm” and “collection-centered paradigm” to a “learning center paradigm.” During this period, scholars' theoretical understandings of Library Learning Centers (as shown in ) and their practical themes varied considerably. The transformation can be broadly divided into three stages.

The first stage began in the 1990s with the construction of library spaces represented by Information Commons and Learning Commons—the earliest concrete manifestations of Library Learning Centers. In 1992, the University of Iowa Library established the “Information Arcade,” which was officially renamed Information Commons after expansion in 1994. Over the subsequent two decades, the United States, Canada, China, and other regions witnessed a construction boom in Information Commons and Learning Commons. Some scholars have noted that Library Learning Centers, Information Commons, and Learning Commons merely represent different terminologies adopted according to varying orientations and developmental stages, without substantive differences in content. During this stage, libraries primarily functioned as resource hubs, providing multifunctional spatial services centered on student learning.

The second stage emerged in the early 21st century when student service centers led by university student affairs departments began to integrate with library services, offering a new construction model for Library Learning Centers. Early Library Learning Center construction typically involved partial renovation or expansion of existing library buildings. As these practices became more widespread, some universities merged their operations and even organizational structures directly with student service centers, transforming them into university-level Learning Centers. Several Chinese-foreign cooperative universities in China have also renamed their libraries as Learning Centers[2]. During this stage, Library Learning Centers merged with University Learning Centers, providing convenient venues for student interaction and collaborative learning within integrated complexes.

The third stage represents the transition toward “Future Learning Centers.” Some scholars have proposed that in the wave of higher education reform, Learning Centers need to incorporate more teaching and curricular elements into their service orientation[4]. Consequently, Learning Centers are considered an evolutionary upgrade of Information Commons[5][6]. In recent years, as the Higher Education Department has proposed higher construction standards for “Future Learning Centers,” Library Learning Centers have been endowed with richer theoretical connotations. The University of Science and Technology of China has also actively explored the construction of three types of spaces—teaching support, learning support, and innovation support—through its library’s Future Learning Center initiative[7]. However, how to create “new types of grassroots learning organizations that support the transformation of learning methods” remains a significant research question.

Overall, during this stage, libraries have become learner-centered, with their primary functions shifting from information exchange to education and teaching[8].

## 1.2 University Learning Centers

As shown in , University Learning Centers primarily construct comprehensive learning support service systems integrating learning, entertainment, socialization, and dining by consolidating resources, collaborating on operations, or merging institutions across student affairs departments, academic departments, libraries, academic affairs offices, and other relevant units. Early explorations mainly featured two forms: student affairs services and academic services.

Student affairs services were often based on the need for campus-wide administrative reforms, focusing on “serving student learning” and forming one-stop student service centers through multi-business collaboration[11]. In the 1960s, as student welfare gained prominence, student affairs departments began constructing student service centers to provide support services. Over subsequent decades, their service scope gradually expanded with increasingly diversified content, including psychological counseling, career planning, campus activities, and social support, while gradually establishing student leadership development and multicultural, inclusive communities.

Academic services, influenced by constructivist learning theory and cognitive psychology, construct Learning Centers centered on cultivating students’ autonomous learning capabilities and improving academic achievement. For example, California State University, Fullerton’s Learning Center, named Learning Assistance Resource Center (LARC) when established in 1984, constituted an important component of the university’s student affairs administration. When a new VLC was established in 1999, it became an independent department under student affairs, primarily providing learning tutoring, organizing learning seminars, implementing peer mentoring programs, and conducting teaching assistant training.

Since 2007, foreign universities have accelerated Learning Center construction. Beyond those originating from student affairs departments, some University Learning Centers evolved from a branch department within the library into sub-library Learning Centers and eventually independent Learning Centers. For instance, Ryerson University Library established a new University Student Learning Center in 2008 to support individual and collaborative learning. Some newly established schools have eliminated separate student service centers and libraries, directly constructing integrated complex-style University Learning Centers during spatial planning, such as the Library and Learning Centre built by Vienna University of Economics and Business in 2013.

## 1.3 Future School Learning Centers

With the arrival of the fourth Industrial Revolution characterized by intelligence, the current education system can no longer meet the demands for cultivating high-quality future citizens and workforces. Consequently, both developed and developing countries actively explore “Future School” construction to transform the standardized direct instruction and passive learning models prevalent during

the first and second Industrial Revolutions. Among numerous Future School studies, the concept of Learning Centers has been repeatedly proposed, though perspectives on the relationship between Learning Centers and Future Schools vary considerably.

The China National Institute of Educational Sciences proposes that Future Learning Centers constitute one of eight practical pathways to realizing Future Schools, highlighting their supportive role for future learning from spatial and technological infrastructure perspectives. In 2013, the Institute officially launched the Future School initiative, and its 2016 *White Paper on Future Schools in China* stated that “Future Learning Centers must address how to achieve learning method transformation within the existing national curriculum system through spatial and technological support”[17]. The Institute designed multi-form Learning Center spatial and technological support solutions tailored to primary and secondary students’ age characteristics and curriculum differences, including collaborative learning spaces, immersive learning spaces, project-based learning spaces, future general classrooms, and future subject classrooms.

The Organisation for Economic Co-operation and Development (OECD) describes “Schools as Learning Hubs” as one of four educational scenarios for Future Schools. In 2020, the World Economic Forum published *Schools of the Future: Defining New Models of Education for the Fourth Industrial Revolution*[18], noting that Future Schools as Learning Centers would retain most of their functions while developing more open organizational networks, more flexible management systems, more diverse teaching methods, and broader teaching participation.

Professor Zhu Yongxin goes further, suggesting that Future Schools will transform into Learning Centers. He posits that schools have experienced four major historical developmental periods: “pre-school stage, school stage, modern school stage, and post-school stage,” with the post-school stage representing Future Schools that could strictly be called not schools but “so-called Learning Centers”[19]. This Learning Center, namely the Future School, will become a learning community where learning time becomes increasingly flexible, fully student-centered and personalized learning becomes mainstream, future teachers become freelancers adapting to “human-machine co-teaching” models, and big data and artificial intelligence gradually transform students’ learning habits to make learning processes easier and more aligned with individual personalities and cognition[20].

Through the deep integration of “Internet Plus,” artificial intelligence, and educational models, Future Schools will undergo systematic transformations in campus space, organizational structure, and educational teaching models, while the relationship between Future Schools and Learning Centers will continue evolving alongside Future School exploration. However, a consensus has emerged that Future Schools will gradually develop into new forms of learner-centered educational environments.

#### 1.4 Future Learning Centers

Literature review reveals that early research on “Future Learning Centers” was extremely limited. In 2012, Shanghai Tianshan No. 1 Primary School constructed a “Future Learning Center” to explore English teaching reform, marking the first physical manifestation of a Future Learning Center. However, at that time, “Future Learning Center” merely served as a designation for a few exploratory projects without forming a conceptualized, systematic definition.

Only in the past five years has research on Future Learning Centers increased significantly, becoming a new research hotspot. In 2019, Professor Zhu Yongxin proposed in his monograph *Future Schools: Redefining Education* that “today’s schools will be replaced by Future Learning Centers,” and further clarified in *Toward Learning Centers: Visions of Future Schools* that Future Schools would be called “Future Learning Centers” to distinguish them from traditional schools. He identified “learning anytime, anywhere, with capable mentors, and through autonomous learning” as the fundamental characteristics of Future Learning Centers.

In 2021, the Ministry of Education proposed the Future Learning Center construction initiative, encouraging universities to pilot Future Learning Centers based on libraries[21]. This year, the Higher Education Department explicitly stated “exploring and advancing Future Learning Center pilots” in its work priorities. These initiatives have accelerated the translation of this theoretical concept into practice. Cities such as Fuzhou[22], Qingdao[23], and Suzhou[24] have hosted numerous forums and seminars to discuss construction approaches and conceptual connotations of Future Learning Centers. This demonstrates that Future Learning Centers constitute an important measure rooted in Chinese soil for building a learning society and learning power, representing a major educational reform strategic innovation with Chinese characteristics.

Compared with visions of Future School development, Future Learning Centers also demonstrate high conceptual coupling with “smart libraries”[25]. Consequently, libraries—with their pioneering spirit and rich experience in responding to learning needs and integrating learning resources—will undoubtedly play an indispensable role in their development. Numerous scholars have analyzed the global progress[26], knowledge transfer models[27], and scenario-based construction[28] of library-based Future Learning Centers. Several university libraries have taken the lead in practical exploration. For instance, the University of Science and Technology of China Library[29] and Shanghai Jiao Tong University Library[30] have conducted preliminary practical explorations of Future Learning Center construction and services from spatial reconstruction perspectives, while Xi’an Jiaotong University Library[31] has supported student autonomous and lifelong learning by reshaping spatial, resource, and learning service scenarios. Moving forward, more libraries will proactively explore development pathways centered on Future Learning Centers to address the evolving educational ecology in the new era.

## 2. Comparative Analysis of Learning Centers

Library Learning Centers, University Learning Centers, Future School Learning Centers, and Future Learning Centers all center on school education. Though developing independently, they share numerous similarities and differences (as shown in ).

From a developmental perspective (as shown in [Figure 1: see original paper]), various Learning Centers emerged at different times yet display trends of convergence and merger. Library Learning Centers and University Learning Centers can be traced back to around the 1960s, while Future Schools and Future Learning Centers are 21st-century concepts. However, University Learning Centers maintain close operational ties with libraries, Future Learning Centers and Future Schools share similar visions of educational forms, Future Learning Centers are theoretically coupled with Library Learning Centers, and Future Learning Centers represent the transformation direction for Library Learning Centers, University Learning Centers, and multi-department collaborations. Thus, whether in terms of origins or future directions, various Learning Centers maintain close interconnections.

[Figure 1: see original paper]

Regarding leading institutions, Library Learning Centers and University Learning Centers operate as subordinate university institutions managed by their respective departments, while Future School Learning Centers and Future Learning Centers represent future visions for schools requiring comprehensive management by university-level administrative bodies. Since Future Learning Centers remain in planning stages, establishing a national-provincial-university three-tier system requires the Ministry of Education to coordinate planning and dynamic management, provincial education departments to conduct provincial construction planning and guidance, and pilot universities to establish Future Learning Center leadership bodies headed by university administrators with broad participation from libraries, academic affairs, student affairs, information centers, and academic departments. Consequently, Future Learning Centers feature more comprehensive, systematic, and holistic management systems.

In terms of target educational stages, Library Learning Centers and University Learning Centers serve higher education, Future School Learning Centers focus on basic education, while Future Learning Centers target lifelong education. Although pilot construction occurs in universities, Future Learning Centers implement a comprehensive education framework involving all personnel, entire processes, and all dimensions. They encompass not only basic education but also preschool, vocational, and higher education; they involve not only school education but also family and social education, thereby constructing a lifelong education service system.

Regarding relationships with libraries, all Learning Centers maintain close connections that dynamically evolve through practice. As previously discussed,

Library Learning Centers have gradually developed from partial spaces and branch departments into sub-library forms and even complete Learning Center designations. Libraries and University Learning Centers have engaged in operational collaboration, service integration, and even institutional mergers. For Future Schools, beyond traditional subordinate relationships, few discussions exist. However, libraries constitute a crucial element in Future Learning Center construction. The Higher Education Department specifically mentioned libraries in both construction directives, first encouraging “a batch of universities to pilot Future Learning Centers based on libraries,” then calling to “explore and advancing Future Learning Center pilots by leveraging university library strengths to integrate diverse campus learning resources,” underscoring libraries’ critical importance in Future Learning Center construction.

Strictly defined, Future Learning Centers—similar to Future Schools—do not constitute rigorous academic concepts but rather timely educational topics whose connotations evolve with different eras[32]. However, as theoretical analysis and practical exploration deepen, Future Learning Centers have become a proper noun with special significance proposed by China, representing a strategic innovation for developing education with Chinese characteristics. This paper has traced theoretical origins and conducted comparative analyses of Library Learning Centers, University Learning Centers, Future School Learning Centers, and Future Learning Centers, elucidating their close academic relationships while identifying Future Learning Centers as the transformation direction for Library Learning Center and University Learning Center practices.

Future Learning Center construction faces a long road ahead but promises bright prospects. We must therefore seize opportunities presented by educational informatization and digital transformation, shift educational philosophies and teaching models, actively explore new paradigms for nurturing talent in the new era, and create new types of grassroots learning organizations that support the transformation of learning methods.

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*Note: Figure translations are in progress. See original paper for figures.*

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