



# Research of Enterprise Online Learning and Training Platform

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**Abstract.** Enterprise online learning and training platform is a group-level online learning platform established by enterprises for the purpose of talent development and employees' professional ability growth. It is an important window for enterprises to publicize party and national policies, laws, regulations, development strategies, corporate culture, and rules. It is also a main platform for enterprises to promote and apply new theories, new knowledge, new technologies, and new methods. It is an important channel for employees' self-help learning. This paper analyzes the development situation and shortcomings of enterprise online learning and training platforms and makes research and exploration in the aspects of platform function construction, knowledge resource system construction, data management, team construction, and operation mechanism research, which has certain guiding significance for the construction and implementation of enterprise online learning and training platform.

**Keywords:** Enterprise Online Learning and Training Platform · Platform function construction · Knowledge resource system construction · Data management · Team building · Research on operation mechanism

## 1 Introduction

In recent years, many enterprises have built online learning platforms to carry out online learning for internal employees, especially large state-owned enterprises. After going through the stages of online training management standardization, electronic courseware development, and construction, online job skill certification, socialized learning, system architecture adjustment, product system planning, and auxiliary performance improvement, China Telecom online learning platform can meet the organizational management and employee learning needs of Quanji group, and gradually form an organization and individual-oriented Online training ecosystem. Baosteel Group has gone through the stages of an online e-learning system platform, training information management, and talent development management, completed the construction of a learning management system and related system integration, and realized the integrated operation of the learning business of the group. Based on the research of a large state-owned enterprise online learning and training platform, this paper will refine the construction and operation path and key points of the current online learning and training platform [1].

## **2 Development Situation and Shortcomings of Enterprise Online Learning and Training Platform**

### **2.1 Development Situation**

#### **2.1.1 It Is an Urgent Need to Strengthen the Construction of the Industry Talent Team**

At present, the industry situation puts forward more and more requirements for enterprise operation mechanisms, management systems, and personnel efficiency. We urgently need to accelerate the development of online training, fully activate the unique advantages of enterprise online learning and training platforms, and cultivate a first-class talent team.

#### **2.1.2 Education and Training Meet the Urgent Needs of Enterprise Digital Transformation**

Accelerating digital transformation is a “required course” for all enterprises today. In recent years, the digital transformation of enterprise education and training has made great progress. In particular, the development of an online training business is conducive to the precipitation of resources and data value. Online training has become an important direction for the transformation and development of enterprise training centers. However, in general, online training focuses on large-scale publicity and implementation and self-study of employees. It has been used as a supplement to face-to-face training for a long time, and there is less planning and implementation of online training projects in grass-roots units. There is an urgent need to vigorously develop network training, accelerate the upgrading iteration from education and training informatization to networking and then to intelligence, and realize the digital transformation of all businesses and links of education and training [2].

### **2.2 Shortcomings**

#### **2.2.1 Platform Architecture and User Experience Need to Be Upgraded**

The technical architecture used by the platform has lagged behind the latest requirements of enterprises for information systems. The application portal and new functions are updated slowly and the iteration speed is slow, resulting in poor user experience and unable to meet the needs of multi-scenario convenient learning.

#### **2.2.2 The Effective Supply of Learning Resources Needs to Be Strengthened**

The lack of an effective online resource update guarantee mechanism leads to the slow iteration of knowledge resources with strong timeliness. At the same time, the large-scale open courses that support employees' career growth and facilitate on-the-job learning are still in their infancy. In addition, learning resources in the form of new media such as short videos loved by employees is still in their infancy.

### **2.2.3 The Cognition of Digital Learning Needs to Be Strengthened**

The original design concept of "moving training from offline to online" can no longer meet the needs of the current digital transformation of training and education. At the same time, enterprises have different information application bases and abilities and have a different understanding of the boundaries and objectives of digital learning. The digital learning design ability, literacy, and thinking of education and training practitioners need to be strengthened.

## **3 Construction Implementation Content**

### **3.1 Establish and Improve Platform Functions**

Follow the standards established by the Internet platform, unify the data model, determine the application portals such as mobile terminal and computer terminal, and clarify the platform business services. Establish and improve many platform functions such as learning, examination, self-test, training class, webcast, and special training, build a training platform suitable for various employment business scenarios at all levels, and support the development of learning activities in the whole time domain, the whole airspace and the whole audience [3, 4].

### **3.2 Establish Online Knowledge Resources**

#### **3.2.1 Establish a Unified Knowledge System**

According to the classification and specification of enterprise on-the-job training and in combination with various on-the-job training standards, the training resource knowledge system of online courses, test questions, cases, and encyclopedia entries is created to realize the systematic management of fragmented resources [5].

#### **3.2.2 Establish Enterprise-Level Learning Content Management System**

Establish a learning content management system, gather and analyze the distribution of learning resources, assist in resource construction planning, evaluate the application effect of learning resources, support customized learning resource services, and realize the life cycle control of learning resources.

#### **3.2.3 Establish a Guarantee Mechanism for the Renewal of Training Resources**

Realize the life cycle control of the whole process of "Demand - Planning - Design - Development - Application - Maintenance- Exit" of online training resources, improve the adaptability and rapid response ability of training resources, sort out the stock resources, off-shelf invalid training textbooks, training courseware, a question bank, cases, and other online training resources according to the curriculum standards and content requirements of on-the-job training [6].

### **3.2.4 Build and Innovate Multiple Curriculum Models**

Develop new business teaching resources, take work tasks as the scene, post ability as the yardstick and career development as the purpose, organize various institutions and experts to study and judge professional needs in detail, and coordinate the development of teaching resources in line with the actual work of business personnel; Encourage organizations or individuals to actively participate in new businesses and new forms of resource supply, and create a "Star team or individual" for the company's resource supply.

## **3.3 Data-Aided Management Decision**

### **3.3.1 Integrate Training Data at All Levels of the Enterprise**

Summarize and analyze online and offline data, mine data value by analyzing personnel learning, online resource application, equipment and facility utilization, and other information, realize personalized intelligent push, ability development prediction and post competency early warning for employees, provide decision-making assistance to human resources departments at all levels, and improve the fine operation level of training and education big data [7].

### **3.3.2 Build a Professional Ability Development Management Platform Covering Career Planning and Post-ability Improvement**

Realize the one-time input, collection, sharing, and sharing of employees' pre-service and post-service development data, and unified closed-loop management of online and offline education and training business. Deploy the application operation data analysis screen, strengthen data-aided decision-making, and provide support for front-line training management [8].

## **3.4 Building Support Team**

### **3.4.1 Realize the Institutionalization of Enterprise Online Learning and Training Platform Management**

Establish and improve management service teams at all levels, realize the hierarchical management of personnel with certificates and authority, establish a top-down management service team, and realize hierarchical operation management. Prepare and promote the application guide of information-based teaching and training, and carry out Administrator certification training.

### **3.4.2 Construction of Customer Service Center**

Build customer service operation and maintenance modes, such as 95598 of State Grid and 10086 customer service center of China Mobile. Establish a smooth reporting and closed-loop management mechanism for application problems, and timely provide front-line operation and maintenance services such as problem consultation and fault handling through the hotline, e-mail, and online customer service. Optimize business processes,

carry out two-way and multi-channel interaction with employees, actively carry out information disclosure and employee care, provide all-around learning consulting services, and comprehensively improve the quality of online learning services [9].

### **3.5 Establish Operation Mechanism**

#### **3.5.1 Innovate the Business Model of Enterprise Online Learning and Training**

Adhere to user-oriented thinking, pay attention to market-oriented operations and value-added services, and promote the transformation of the platform from management to service. Improve the data management and sharing application mechanism, establish digital services for organizations and individuals, deeply tap the value of data, and form the whole value chain of talent training. Build a selection and promotion mechanism for applied innovation achievements, build a brand system, and enhance the influence of the industry.

#### **3.5.2 Establish Integral Operation System**

Establish a quantitative statistical system for the contribution of credits, contribution points, and activity to training and knowledge. Credits are the scores accumulated by employees according to corresponding standards through learning push courses, optional courses, courses in online training courses, or participating in formal learning activities such as online examinations and question bank self-test. Contribution score refers to the score accumulated by employees according to corresponding standards through the development of standard courseware, micro-courses, and other online training resources or expert (Trainer) Q & A. Activity score is the score accumulated by employees according to corresponding standards through logging in, using the search function, participating in learning community and other informal learning activities [10].

#### **3.5.3 Establish a Mechanism for Paid Use of Resources**

Establish a quantifiable contribution incentive and restraint mechanism, give play to the value of new production factors such as knowledge, technology, and management data, adhere to the concept of knowledge pricing, establish a scientific and reasonable training resource pricing system that can reflect market supply and demand, resource scarcity and resource content quality, enrich the paid use of high-quality resources, and promote the inheritance of knowledge and skills.

## **4 Conclusion**

Based on the analysis of the development situation and shortcomings faced by the enterprise online learning and training platform, this paper puts forward the functional construction content of the enterprise online learning and training platform, defines the key links of knowledge resource system construction and data management, provides complete teams, establishes operation mechanism, and comprehensively introduces the key nodes of the enterprise online learning and training platform construction, It has a certain inspiration for the development of enterprise universities.

## References

1. Zhang, J. (2021) Comparative Research and Enlightenment on the Transformation and Development of Enterprise Training in the Intelligent Era. *Journal of Sinopec Management Institute*, 23(05):59–62+66.
2. Cao, G. P. (2022) Practice and Understanding of Integrated Development of Education, Training and Publishing under the Mode of "Internet plus Training". *Journal of News Research*, 13(12):193-195.
3. Pu, C. F. (2022) Design and Application of English Online Learning Platform[J]. *Wireless Communications and Mobile Computing*, 2022.
4. Zou, G. Y., Zhao, L. R., Liu, L. (2020) Research on Enterprise Live Training Mode and Application Based on Online Learning Habits. *Management & Technology of SME*, 2020(12):110-111.
5. Information Technology - Information and Knowledge Management; New Information and Knowledge Management Findings from Newcastle University Discussed (IoT-cane: a Unified Knowledge Management System for Data-centric Internet of Things Application Systems)[J]. *Information Technology Newsweekly*, 2019.
6. Liu, J., Zhang, H., Liu, Z. Research on Online Learning Resource Recommendation Method Based on Wide & Deep and Elmo Model[C]// AEIC Academic Exchange Information Center(China).Proceedings of 2019 2nd International Symposium on Big Data and Applied Statistics(ISBDAS2019)(VOL.1). IOP Publishing, 2019: 7. DOI: 10. 26914/c.cnkihy. 2019. 096675.
7. Sustainability Research; Studies from Radboud University Yield New Data on Sustainability Research (On corporate sustainability integration research: Analysing corporate leaders' experiences and academic learnings from an organisational culture perspective)[J]. *Ecology Environment & Conservation*, 2018, : 305-.
8. Design And Implement for Platform of Students' Professional Abilities Development in Higher Vocational College.
9. Wu, W. J., Fei, X. M., Chen, F. F. (2021) Exploration and Practice of 95598 Business Innovation Whole Process Management. *Journal of Shanghai University of Electric Power*, 37(S1):86-88.
10. Shao, J. B., Wu, Z. Y. (2019) Reader Point System——Practice of Xiamen University Library. *Research on Library Science*, 2019(16):83–88+101.DOI:<https://doi.org/10.15941/j.cnki.issn1001-0424.2019.16.012>.

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