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Digital Transformation of Enterprise Learning: A Case Study of China Telecom

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Abstract

This study aimed to explore the digital transformation of enterprise learning. Through the case study of China Telecom, we studied how it transformed and its transformation dimensions.

Keywords: digital transformation; enterprise learning; China Telecom

Nowadays, digital transformation has become an inevitable trend. And digital transformation has been taking place in individuals, organizations and even the entire social ecology, and many enterprises are actively embracing digital transformation.

The digital transformation of enterprise learning is an important part of enterprise digital transformation. In addition, with the development of digital technology and the influence of era background, such as Covid-19 and globalization trends, enterprise learning needs digital transformation to face the many challenges and problems of enterprise learning in the digital era. In this context, this study explored the transformation of enterprise learning in China Telecom, and summarized the experience of digital transformation.

Relevant Literature

Digital transformation has affected all areas of the enterprise (Mieszajkina & Myśliwiecka, 2023), and the proportion of digital technology in enterprise learning is increasing (Yu et al., 2023). But digital transformation is not always successful, and the failure rates up to 90% (Ramesh & Delen, 2021). And one of the reason is that digital transformation was a process of change in many aspects and it is not enough to only use digital technology (Vial, 2019). And many challenges and problems of enterprise learning should be solved in digital age.

Data and intelligent technology play an important role in digital transformation of enterprise learning. Digital transformation can improve performance by using data to support analysis, prediction and decision-making (Roedder et al., 2016). Data, the essential driving forces for production, needs to be used effectively (Huang et al., 2021). In addition, the intelligent technology can improve management efficiency, automatically analyze and collect data, and construct the integrated, precise, and personalized system (Fang et al., 2020; Wang, 2021; Zhao, 2021).

Research Design

China Telecom is a large scale state backbone enterprise of communication in China, which is an important pillar of the digital society. In addition, China Telecom is the front runner in digital transformation of enterprise learning and it has won the ATD (Association for

Talent Development) award many times.

In this study, a case study was applied to research the exploration and substantive achievements of digital transformation of enterprise learning in China Telecom in order to find an answer to how digital transformation of enterprise learning transforms and its transformation dimensions. This case may provide guidelines for the digital transformation and transformation practical experience of enterprise learning.

Results

Over the decades, China Telecom insisted on change and transformation. With the emergence of digital technology, enterprise learning was facing many new problems. Enterprise learning needed to implement digital transformation to adapt to the times. In order to achieve more comprehensive, more precise and more flexible digital transformation, China Telecom not only focused on some leading ideas and future development directions, but also paid attention to the suggestions and demands within the enterprise, including the human resources department, group leaders, and business departments. Then China Telecom fully considered these ideas, analyzed problems from multiple perspectives, and these problems can be summarized into resource, platform, management and operation dimensions. Based on this, China Telecom proposed related transformation actions to face, intervened problems effectively and finally achieved digital transformation.

In brief, the digital transformation of enterprise learning in China Telecom followed the three-step process: finding the problems, analyzing the problems and solving the problems, and focused on resource, platform, management and operation dimensions (See figure 1).

The resources dimension. Learning resources is the foundation of digital learning, but some learning resources, especially the unmatched, low-quality resources would cause the negative learning experience and thereby lead to inefficient learning. Besides, the single form resources was difficult to stimulate learners' motivation, and reduce learners' engagement.

In order to solve the problems, China Telecom reformed the process of developing learning resources through digital transformation which made full use of data and digital technology. In detail, when finding the theme of learning resources, China Telecom used data to help find and choose the matched learning resources; when producing the learning resources, China Telecom provided related data and digital tools to develop high-quality learning resources, and resources designers, teachers and others could co-construct learning resources, moreover, multiple forms could be applied to present learning resources; and when evaluating the resources, digital platform and intelligent technology were used to give timely feedback and visualize evaluation, which can provide data to help finding the theme of learning resources, and then realized a better cycle.

Through these ways, the demand and supply of learning resources have been balanced, the learning resources have become more suitable for their practical work. And China Telecom has improved its learning resources developing system with data and intelligent technology.

The platform dimension. Since 2004, China Telecom has started online learning and developed a learning platform. But there were still some problems that needed to be addressed. There might be many learning platforms related to different learning resources,

which would match different access ports. And employees might need to learn on particular device and time, which led to low freedom learning.

And since 2019, China Telecom has begun the process of building a digital learning platform. In order to improve the shortcomings of traditional learning platforms, China Telecom improved the functions and connectivity of digital platform and integrated learning platforms. In the process of building a digital learning platform, China Telecom has actively absorbed and applied advanced transformation experience on the basis of fitting its actual situation.

Through these ways, the digital platform can simplify learning process and enhance learners' experience, it can be accessible anytime, anywhere. Besides, the digital platform not only can realize interconnection and cross-border communication and learning, but also can support digital transformation in other dimensions, for example, it can carry different forms of learning resources, collect the learning data of learners, strengthen the connection between platforms and products, and contain digital evaluation and management system. In a word, the digital learning platform of China Telecom played a key role in the digital transformation of enterprise learning.

The management dimension. The management can show the direction of digital transformation, digital transformation was based on digital management. And unintelligent management and non-exchange management were out of date, which might relate to inefficient management. And with the production of mass data, the value of data in management dimension needed to be explored.

After comprehensively analyzing these problems, China Telecom tried to make full use of data and intelligent technology in management dimension, like improving personnel management through whole process record, promoting the reform of training and learning methods, and optimizing decision management through cross-border data and smart decision-making with intelligent technology.

Through these ways, China Telecom built a more systematic, intelligent management system, which not only utilized the data to assist scientific decision-making, but also circulated the data of management.

The operation dimension. Operation is a great lubricant for digital transformation of enterprise learning. China Telecom also found some problems in operation dimension, for example, only partial employees had been covered, which might reduce employees' learning opportunities. And some employees complained that the unmatched support services hindered their learning, and sometimes it was boring because of the fixed process.

In order to solve this problem, China Telecom constructed operational network and enhanced entire training process through data driven. Furthermore, China Telecom took the diverse demands of learners into account, and implemented personalized learning support and pushed function services.

Through these ways, different roles in training has been empowered. In detail, teachers has been empowered through simplifying their work and improving the understanding of students, students has been empowered through transforming their learning methods, the managers of training has been empowered through comprehensive intelligent management. Besides, through digital transformation of enterprise learning in operation dimension, China Telecom can support full learning process with data and intelligent

technology, and achieve full coverage of employees.

After four-dimensional digital transformation, we can find the number of learners, learning time, and individualized knowledge service of enterprise learning have been improved greatly. What's more, the needs of lifelong learning of employees and high-quality development for the organization have also been met.

Conclusion and Implications

In this study, through the three-step process, China Telecom achieved digital transformation of enterprise learning. What's more, China Telecom completed the digital transformation in resource, platform, management and operation dimensions, and finally achieved a comprehensive performance improvement. Moreover China telecom took advantage of digital time. It embed data into the whole digital transformation process through data application, data management and data governance.

In the digital transformation of enterprise learning in China Telecom, the change in resource dimension laid the foundation for digital transformation, the change in platform dimension provided facilities and equipment for digital learning, the change in management dimension led the direction of digital transformation and the change in operation dimension drove the entire digital process. The transformation of the four dimensions basically covered all aspects of the digital transformation of enterprise learning, which could promote each other. And finally built a digital learning system and realized a comprehensive digital transformation. And it should also be emphasized that in digital transformation, we may find the new problems one day, and then we should analyze and solve the new problems. It is endless, in other words, digital transformation is a never-ending journey.

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Figure 1

Four-dimensional digital transformation of enterprise learning in China Telecom

