Construction of a Research Model for Overseas Dissemination of Chinese Literature Based on Deep Learning Models

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ABSTRACT

With the comprehensive and in-depth implementation of the "going global" strategy of Chinese culture, research on the overseas dissemination of Chinese literature has gradually become a prominent discipline. This article first defines the essence of overseas translation of Chinese literature, and based on Brado's 7W communication model, combined with the current situation of overseas dissemination of Chinese literature, analyzes the motivation of translation ecology research on overseas dissemination of Chinese literature. Through simulation experiments and actual data analysis, the differences in the accuracy of individual and joint regularization methods in small sample high-dimensional feature selection of deep learning models were compared. The research on the overseas dissemination of Chinese literature is still in its infancy, and conducting research and analysis on it is of great significance.

KEYWORDS

Deep Learning Model, Overseas Dissemination of Chinese Literature

INTRODUCTION

In the era of big data and innovative change, traditional teaching models and methods are facing unprecedented challenges. The explosive growth of information and the transformation of learning methods have driven us to have a new understanding of the education system (Bai, 2020). However, information overload comes with it, and users often find it difficult to extract useful data from a large amount of information (Liu, & Zou, 2023). It is often necessary, especially in supervised learning, to learn a hyperplane that can distinguish different problems, but the hyperplane's original functionality may not be able to meet this requirement, so finding a suitable feature-mapping space is crucial. As an emerging research direction in the field of machine learning, deep learning has successfully addressed complex and uncertain problems by simulating the human nervous system, and it has achieved significant results in areas such as image classification, text detection, and speech recognition.

More and more contemporary Chinese literary works are going global, providing opportunities for promoting cultural exchange and optimizing the global cultural ecology. However, the literary translation ecology still faces some problems, especially in how to effectively disseminate Chinese literature and its essence. To address these issues, deep learning technology, as a new computational method, has begun to make breakthroughs in multiple fields, especially in understanding complex information and extracting deep meanings. With the development of algorithms, deep learning has become the core of intelligent research and is gradually being applied to emerging fields, such

as mobile machine learning. In this article, I aim to summarize and analyze the research on deep learning and the dissemination of Chinese literature, using methods such as establishing calculation formulas and data graphs for analysis and combining interpretation and model drawing. By using these methods, this study not only provides readers with a clear research framework but also further expands the application of deep learning in the field of cultural communication.

The main contributions of this article include establishing vivid model diagrams to demonstrate research results, using multiple evidence to deepen research, and revealing the potential application of deep learning models in the dissemination of Chinese literature. This study not only contributes to the optimization of the literary translation ecosystem but also provides new ideas for the global dissemination of Chinese literature.

I first introduce relevant work and further explain pertinent research at home and abroad. Then, I introduce the relevant theories and research methods related to the dissemination of Chinese literature. Next, I introduce the research results of deep learning models and analyze the data. I conclude the article with a summary.

Related Work

Deep learning is an important branch of machine learning, and it has developed rapidly in recent years (Li & Jia, 2020). Methods based on deep learning have gradually become an important way for people to solve problems (Liu, 2019). Deep learning models are capable of learning complex structures well, but they typically require large samples (Na et al., 2023). The dissemination of Chinese literature abroad is a type of translation and introduction activity that can also be considered a type of dissemination activity (Rong & Ren,2023). The deep learning method can automatically extract multilevel features from samples, thus processing images efficiently (Shi et al., 2024). In the face of the exciting external communication situation of contemporary Chinese literature, scholars in Chinese academic circles have begun to study spread Chinese literature (Shen, 2021). Machine learning based on statistics is an important part of artificial intelligence. In machine learning, we face different learning tasks, including data mining, computer vision, text classification, genetic engineering, and so on (Song, 2024). Different countries and nations have unique cultural traditions and national values. It is these diverse cultural traditions and national values that make our world colorful and full of charm, so that people with different personalities and pursuits can find their own place in it (Wang, 2022).

The dissemination of literature overseas is a topic that encompasses various forms of cultural exchange and communication. Cao & Zhang (2020) conducted a systematic literature review on the experience of overseas-trained health professionals in rural and remote areas of destination countries, highlighting the importance of understanding the challenges and opportunities these individuals face as they work in different cultural contexts. Similarly, Dehong (2024) focused on the Music Confucius Institute as an agent for international Chinese music dissemination, emphasizing the role of educational and presentational functions in promoting Chinese cultural communication across the globe. In the realm of literary translation Fan (2023) discussed the difficulties in translating regional classical Chinese poetry, emphasizing the significance of regional cultural communication in academic studies to the overseas dissemination of Chinese literary heritage. Fang & Changbao (2023) further explored joint patronage in translating Chinese literature into English, showcasing successful initiatives such as the Chinese Literature Overseas Dissemination Project, which aims to bridge cultural gaps through collaborative translation efforts.

The influence Chinese literature has on a global scale is also evident in studies such as the one conducted by He & Yao (2023), who examined the impact of Chinese newspapers and periodicals on Japanese Chinese literature, highlighting the role of media platforms in fostering literary exchange among overseas Chinese communities. Liang (2022) emphasized the importance of strengthening the content review and copyright protection of overseas internet literature to enhance its dissemination worldwide. Furthermore, Liu (2024) delved into the analysis of Chinese American literature from the

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