CULTURAL TRANSFORMATION OF CHINESE LANGUAGE LEARNING IN THE AI ERA

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Abstract

The integration of artificial intelligence (AI) into foreign language education has significantly reshaped learning practices, particularly in the learning of Chinese as a foreign language. Given the inseparable relationship between language and culture in Chinese language education, the increasing use of AI-based tools raises important questions regarding cultural transformation in learning processes. This study investigates how AI-assisted learning influences students' cultural perceptions, learning habits, and engagement with Chinese cultural content. Using a quantitative descriptive approach, data were collected through an online survey involving 46 undergraduate students from the Chinese Language and Culture Program at Universitas Padjadjaran, Indonesia. The questionnaire examined students' frequency of AI usage, perceived impact on language learning, and perceived changes in cultural awareness. The findings reveal that AI-based tools contribute not only to learning efficiency but also to shifts in how students access, interpret, and internalize Chinese cultural elements. While AI supports understanding through instant explanations and contextualization, it also encourages a more pragmatic and global-oriented view of Chinese culture. This study highlights the cultural implications of AI integration in Chinese language learning and underscores the importance of balancing technological innovation with cultural depth in higher education..

Keywords: Artificial Intelligence, Chinese Language Learning, Cultural Transformation, Cultural Awareness, Higher Education.

1. INTRODUCTION

The rapid development of artificial intelligence (AI) has brought profound changes to foreign language education. Technologies such as machine translation, intelligent tutoring systems, and conversational chatbots have become integral tools in language learning environments. In the context of Chinese as a foreign language, these technological shifts are particularly significant, as Chinese language learning is deeply intertwined with cultural understanding, values, and social practices.

Traditionally, cultural learning in Chinese language education has relied on textbooks, classroom interaction, and teacher-centered explanations. However, AI-based tools now allow learners to access cultural information instantly, often outside formal learning spaces. This transformation raises questions regarding how culture is perceived, interpreted, and internalized by learners in the AI era. Rather than merely enhancing linguistic competence, AI may reshape learners' attitudes toward Chinese culture, making it more accessible, functional, and globally framed.

AI has been widely adopted in foreign language education to support personalized learning, immediate feedback, and autonomous study (Luckin et al., 2016). Previous studies indicate that AI tools can improve learning efficiency and

learner motivation (Zawacki-Richter et al., 2019). In Chinese language learning, AI applications such as speech recognition, character writing assistants, and translation tools are increasingly common.

Language and culture are inseparable components of foreign language education (Byram, 1997). Cultural competence involves not only knowledge of cultural facts but also attitudes, awareness, and interpretative skills. In Chinese language learning, understanding cultural norms, values, and communication styles is essential for meaningful language use.

Digital technologies have transformed how learners encounter and interpret cultural content. AI-driven platforms often present culture in fragmented, practical, and globalized formats (Kramsch, 2014). While this may enhance accessibility, it may also reduce cultural depth if not guided critically. Understanding this transformation is crucial for sustainable language education.

Despite the growing body of research on AI in language learning, studies focusing on the cultural dimension of AI-assisted Chinese language learning remain limited. Therefore, this study aims to explore cultural transformation in Chinese language learning from the perspectives of university students who actively use AI-based tools in their learning process.

2. METHODOLOGY

This study employed a quantitative descriptive research design to examine students' perceptions of AI-assisted Chinese language learning and its cultural implications. The participants consisted of 46 undergraduate students from the Chinese Language and Culture Program at Universitas Padjadjaran, Indonesia. All respondents were actively enrolled in Mandarin language courses and had prior experience using AI-based tools to support their Chinese language learning. The participants represented beginner to intermediate levels of Mandarin proficiency, making them appropriate subjects for examining AI-assisted learning practices and cultural perceptions. Universitas Padjadjaran was selected as the research context due to its structured Chinese language and culture curriculum, which integrates linguistic competence with cultural learning objectives.

Data were collected through an online questionnaire consisting of Likert-scale items and open-ended questions. The questionnaire examined:
1. Frequency of AI usage in Chinese language learning
2. Perceived impact of AI on learning habits
3. Perceived influence of AI on cultural understanding and awareness

Descriptive statistical analysis was conducted to identify patterns in students' responses. Qualitative insights from open-ended responses were used to support quantitative findings.

3. FINDINGS AND DISCUSSION

This section presents and discusses the findings of the study based on students' responses to the survey. Rather than viewing AI solely as a technological tool for improving linguistic competence, the discussion highlights how AI contributes to broader changes in learning behavior and cultural engagement in Chinese language learning. The findings reveal that AI not only reshapes students' learning practices but also influences how Chinese culture is accessed, interpreted, and experienced by learners in the digital era.

3.1 Students' Use of AI in Chinese Language Learning

The survey results show that AI-based tools have become an integral part of students' Chinese language learning practices. Most respondents reported frequent use of machine translation applications, grammar checkers, and conversational chatbots to support their learning activities. These tools are primarily used to clarify vocabulary meanings, sentence structures, and contextual usage, especially when dealing with unfamiliar or complex expressions in Mandarin.

Students perceive AI as a practical and time efficient learning assistant that provides immediate feedback and explanations. Rather than replacing formal learning resources, AI is often used as a supplementary tool that helps students navigate linguistic difficulties independently. This pattern suggests that AI functions as a form of on-demand academic support, allowing learners to engage with the Chinese language more confidently and continuously outside the classroom.

From a cultural perspective, this frequent interaction with AI also shapes the way students encounter cultural elements embedded in language use. Cultural references, idiomatic expressions, and pragmatic meanings are often introduced through AI-generated explanations, indicating a shift in how cultural knowledge is mediated in contemporary Chinese language learning.

3.2 AI and Changes in Learning Habits

The findings indicate that the use of AI significantly influences students' learning habits. Many respondents reported becoming more independent and flexible in their learning processes. Instead of relying solely on instructors or textbooks, students actively seek explanations, examples, and confirmations through AI tools whenever they encounter difficulties.

This shift reflects a broader transformation from teacher-centered learning to learner-centered practices, where students take greater responsibility for their own learning. AI enables learners to study at their own pace and according to their individual needs, which aligns with the principles of autonomous learning in digital education.

However, this increased autonomy also alters the traditional dynamics of classroom learning. While instructors remain important, their role gradually shifts from being the primary source of knowledge to becoming facilitators who guide interpretation and critical thinking. In this context, AI does not diminish the role of

educators, but rather reshapes it within a more flexible and technology-mediated learning environment.

3.3 Cultural Transformation in Learning Chinese

Beyond changes in learning habits, the findings reveal a noticeable cultural transformation in how students perceive and engage with Chinese culture. Many respondents indicated that AI-assisted learning helps them view Chinese culture as more modern, global, and accessible. Cultural content is often encountered through practical explanations, real-life examples, and simplified contexts provided by AI tools.

This mode of cultural exposure allows students to connect cultural concepts directly to language use, making cultural learning feel more relevant and less distant. As a result, students are more willing to explore cultural topics independently, including customs, expressions, and social practices related to Chinese language use.

Nevertheless, the findings also suggest potential limitations. The convenience and efficiency offered by AI may encourage a surface-level understanding of culture, where cultural elements are treated as functional information rather than as complex systems of values and beliefs. Without critical engagement, cultural learning risks becoming fragmented and instrumental.

Within the context of Universitas Padjadjaran, where cultural instruction is an integral component of the Chinese Language and Culture curriculum, AI-assisted learning appears to complement formal instruction. AI provides immediate cultural references beyond the classroom, while institutional learning spaces remain essential for deepening cultural understanding through discussion, interpretation, and reflection..

3.4 Balancing Technology and Cultural Depth

The findings underscore the importance of balancing technological efficiency with cultural depth in Chinese language education. AI can serve as an effective entry point to cultural learning by making cultural information more accessible and relatable. However, meaningful cultural understanding cannot rely solely on automated explanations.

Educators play a crucial role in contextualizing AI-mediated content and guiding students toward deeper cultural interpretation. Guided discussions, reflective activities, and critical comparisons between AI-generated information and authentic cultural sources are essential to prevent superficial learning.

In this sense, AI should be positioned as cultural scaffolding rather than a replacement for cultural instruction. When integrated thoughtfully, AI can enrich Chinese language learning by supporting both linguistic development and cultural awareness, while maintaining the depth and complexity that cultural education requires.

4. CONCLUSION

This study demonstrates that AI-assisted Chinese language learning contributes to cultural transformation by reshaping learning habits, cultural perceptions, and access to cultural content. AI enables learners to engage with Chinese language and culture in more flexible and practical ways, fostering autonomy and global perspectives. However, to ensure meaningful cultural learning, technological integration should be accompanied by pedagogical strategies that emphasize cultural depth and critical awareness. Future research may explore longitudinal impacts of AI on intercultural competence in Chinese language education.

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