Exploring Chinese Economic Discourse and Translation Strategies in the Era of AI: A Digital-Tech Approach

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Abstract

Chinese economic discourse, often underexplored, serves as a comprehensive reflection of the country's economic reforms and national governance system, while also epitomizing China's unique developmental trajectory. This paper employs a digital-tech approach to conduct an in-depth analysis of the database from *Xi Jinping: The Governance of China* (Vols. I to III), investigating the linguistic characteristics of Chinese economic discourse and its translation strategies. The objective is to provide strategic insights for the global dissemination of this discourse. Through both quantitative and qualitative analyses, the study identifies key terms such as "people," "reform," "opening-up," "development," and "security" that are prevalent in Chinese economic discourse. Additionally, it reveals that the discourse is rich in conceptual metaphors and culture-specific metaphorical expressions. Furthermore, the findings highlight the significant role that artificial intelligence can play in interpreting and promoting this discourse internationally.

Key Words: Chinese Economic Discourse, ChatGPT, digital-tech approach, post-editing, AIPE, global dissemination

1. Introduction

In the wave of globalization, the advent of the era of artificial intelligence presents unprecedented opportunities and challenges for China's national discourse analysis and its translation. Chinese economic discourse is not only a comprehensive reflection of China's economic reforms and national governance system but also a concentrated demonstration of the experiences and successes derived from China's developmental path. It encompasses a wide range of topics, including economic policies, reform and development, socio-cultural issues, and ecological civilization, forming an integral part of China's national discourse. However, due to the unique nature of China's political system and the prevalent depiction of Chinese politics by mainstream international media, Chinese economic discourse is often marginalized in international communication and fails to fully showcase its unique value and appeal. With the significant enhancement of China's international status and comprehensive national strength, countries around the world, particularly developing nations, have shown a keen interest in drawing lessons from China's remarkable economic achievements. This not only provides a vast platform for the international dissemination of Chinese economic discourse but also raises higher demands for the translation strategies associated with it. Therefore, this study aims to adopt a digital humanities and translation studies perspective to conduct an in-depth analysis of the database of "Xi Jinping: The Governance of China (Vols. I-III)," exploring the linguistic features of Chinese economic discourse and its translation strategies. The goal is to provide strategic guidance for the global dissemination of Chinese economic discourse.

2. Literature Review

With the enhancement of China's comprehensive strength and the elevation of its international status, the dissemination of Chinese national discourse—both domestically and internationally—has attracted significant attention from scholars in both China and abroad. This has emerged as a new perspective and a hot topic in the study of "China." Research on domestic and international dissemination has evolved from a focus on domestic communication to the construction of international discourse power, with much of the international research examining China from political and diplomatic dimensions.

2.1 Research within China

Since the 18th National Congress of the Communist Party of China, the construction and interpretation of the Chinese political discourse system, as well as its international dissemination, have received high-level national attention (Wang & Zhang, 2017; Qin & Kong, 2019; Xun, 2019; He, 2020; Zhang, 2022; Zhang & Zhang, 2024). According to China National Knowledge Infrastructure (CNKI), there have been a total of 1,685 research papers over the past 70 years related to the translation and dissemination of Chinese political discourse/texts/literature. Over half of these focus specifically on the translation of political works by Party and state leaders (i.e., 864 papers). The primary research perspectives include studies on the types of Chinese political discourse from the viewpoint of discourse genres, interpretations of Party and state leaders' discourse within a hermeneutic framework, linguistic features of Chinese

political discourse from a linguistic standpoint, and translation studies of Chinese political discourse from the perspective of communication and translation.

From the perspective of communication studies, research has focused on both the intrinsic translation (e.g., translating from Chinese to ethnic minority languages) and the interlingual translation (e.g., Chinese to English, Chinese to Japanese), including studies on external translation dissemination strategies, translator decision-making, translation norms, and international acceptance or effectiveness (Si & Zeng, 2021; Zhao & Zhao, 2022; Wang, 2023a).

In terms of textual data, most studies focus on *Xi Jinping: The Governance of China*. Existing research often centers on issues related to the language and translation of specific volumes of the book, addressing topics such as metaphor translation, classical allusions, classical poetry and prose, subtexts, community of shared future for mankind, idioms, causative sentences, cognates, pragmatic markers, terminology standardization, culture-loaded terms, diplomatic discourse styles, euphemisms, and China-specific terminology (e.g., Zhang, 2020). Many studies leverage theoretical perspectives such as translation studies on external propaganda translations, German functionalism, post-editing, ecological translation studies, relevance theory, narratology, and reception theory to discuss translation strategies, methods, and principles related to the transformation, rephrasing, explicit strategies, creative translation, foreignization, and interpretation of Chinese political and diplomatic discourse (e.g., Zhong & Fan, 2018). However, research driven by corpora in the context of external propaganda translation remains scarce, with notable exceptions such as Ye and Zhu (2022) and Wang (2023a).

These diverse studies provide valuable insights, particularly reflections and suggestions for the international dissemination of Chinese political discourse within communication studies (Guo, 2020). However, research within China is largely constrained by modern Western disciplinary boundaries, with few scholars systematically exploring the translation publication and international dissemination of Chinese economic reform discourse from interdisciplinary or digital humanities perspectives (Wang & Li, 2024). There is a pressing need for research focused on the significance of Chinese economic reform discourse and the construction of its international discourse system.

2.2 Overview of International Research

According to the Web of Science (WOS) database, international research on Chinese political discourse began later and remains relatively sparse. Sydney (1998) highlighted the identity construction issues concerning ethnic minorities within Chinese political discourse, drawing academic attention. Since the 21st century, international political and cultural researchers have increasingly discussed themes such as democracy, gender, development, environment, diplomacy, the "Belt and Road Initiative," and territorial issues from a post-colonial perspective (Demirtepe & Ozertem, 2013; Noesselt, 2016; Goron, 2018; Bertulessi, 2024). However, very few studies have examined the international role of Chinese economic discourse (exceptions include Munyrith & Jiatai, 2020). The relevant works published by Chinese scholars internationally primarily belong to the linguistic domain, focusing on corpus-driven political discourse analysis or research on translation strategies (Wang, 2017; Chen, 2020; Wu & Cheng, 2022; Pan & Wang, 2021).

Research combining the fields of publishing dissemination and translation studies is extremely rare. Furthermore, the international translation studies community has begun to pay attention to the recent hot topics concerning the translation and dissemination of Chinese political discourse, even dedicating special sections for calls for papers, such as the theme for *The Translator* in 2024.

International research is gradually transitioning from cross-cultural perspectives to interdisciplinary studies, which is significant in providing guidance and promoting progress. However, much of it tends to deconstruct Chinese political discourse and distort the image of its leaders from a Western discourse framework, often leading to a narrow focus that fails to recognize the international publication and dissemination of economic discourse within the Chinese political discourse system. Consequently, this has hindered the formation of theories, strategies, or methods intended to guide the dissemination of economic discourse and China's reform experiences.

3. Language Features and Translation Strategies of Chinese Economic Discourse

By collecting bilingual corpora from *Xi Jinping: The Governance of China (Volumes I to III)*, we established a parallel database comprising over one million Chinese characters and more than 700,000 English words. These three volumes include 79 significant works (arranged in 18 chapters) from Xi Jinping published between November 15, 2012 and June 13, 2014, 99 important works (in 17 chapters) from August 18, 2014 to September 29, 2017, and 92 important works (in 19 chapters by topic) from October 18, 2017 to January 13, 2021.

3.1 Keywords in Chinese Economic Discourse

In the era of big data and artificial intelligence, we can conduct comprehensive and systematic visual analysis of the Chinese economic discourse database by adopting the data-digital approach (Wang, 2023b). The total word tokens for Volumes I to III are 753,318 and 481,751, respectively. The high-frequency words are summarized in Table 1.

Table 1. High-Frequency Words in the Bilingual Database

Chinese Corpus			English Corpus		
Rank	Word	Freq.	Rank	Word	Freq.
1	人民	2085	1	people	2129
2	国家	1653	2	China	2057
3	经济	1518	3	development	1999
4	社会主义	1334	4	Party	1823
5	问题	1293	5	Chinese	1636
6	社会	1185	6	work	949
7	政治	1054	7	reform	883
8	制度	1037	8	economic	821
9	全面	997	9	system	695
10	世界	980	10	build/s/ing/built	636
11	特色	851	11	CPC	604
12	领导	788	12	security	489
13	体系	683	13	culture/al	458
14	群众	641	14	growth	456
15	思想	553	15	need	451
16	文化	552	16	leadership	419
17	精神	506	17	interests	404
18	道路	392	18	economy	392
19	生态	383	19	progress	391
20	法治	366	20	long	384
21	事业	366	21	develop	359
22	政策	358	22	opening	337
23	机制	339	23	market	311
24	科技	332	24	innovation	310
25	市场	328	25	peace	290
26	政府	301	26	poverty	260
27	深化	287	27	environment	232
28	风险	279	28	education	217
29	利益	273	29	stability	205
30	力量	265	30	resources	200

Using an online word frequency statistics tool (https://www.lzltool.cn/word-frequency), we can visualize the high-frequency words to understand the topics present in the economic discourse of the original texts. This visualization aligns closely with Table1, indicating that the high-frequency content words in Chinese economic discourse include: people, socialism, economy, country, issues, system, comprehensive, characteristics, leadership, system, spirit, path, reform, mechanism, development, deepening, stability, and resources among others.



Figure 1. Visualization of High-Frequency Words in Chinese Economic Discourse

3.2 Rhetoric and Translation Strategies of Chinese Economic Discourse

Chinese economic discourse features distinctive Chinese expressions, terminological specificity, metaphorical usage, allusions, poetic qualities, and Xi Jinping's particular wording style. Consequently, it embodies a high degree of economy, literary quality, philosophical depth, and experiential insight into China's economic development. Due to space constraints, we will focus on metaphorical expressions within the economic discourse found in the database, employing AI to compare the translations of professional translators with those generated by AI to explore how technology can better serve the international dissemination of Chinese economic discourse in the AI era.

(1) Keywords of Chinese Economic Discourse: Reform

China's national discourse system has undergone significant shifts, evolving through revolutionary discourse, construction discourse, and reform discourse. The reform discourse is a central reflection of China's economic development (Wang & Li, 2024). Metaphor is a commonly used rhetorical strategy in articulating Chinese economic discourse, allowing for a vivid conveyance of the implications of economic policies and development ideas, thereby exerting a more powerful and far-reaching persuasive effect on readers. By exploring the database, we can identify a plethora of metaphors utilized to explain core terms in Chinese economic discourse, including "reform" (e.g., deep water zone, tackling tough battles, hard nuts to crack, opening green lights, etc.), "development" (e.g., dual-wheel, dual wings, new normal, new track, baton, quality revolution, artisan spirit, supply-side reform, etc.), "innovation" (e.g., mass innovation, sharp blade), "regulation" (e.g., fine-tuning, expansive stimulus, strategic resolve, targeted regulation, timely regulation, precision regulation, "six ensures" and "six guarantees," etc.), "ecology" (e.g., declaring war on pollution, building a beautiful China, "green mountains and clear waters are as valuable as mountains of gold and silver," blue sky defense war, "five-in-one" strategy, scientific policymaking, treatment of both symptoms and root causes, strong-armed governance, green consumption, carbon peak, carbon neutrality), and "outcomes" (e.g., building a moderately prosperous society in all respects, targeted poverty alleviation, lifting out of poverty, designation of poverty alleviation efforts, rural revitalization, sustained efforts).

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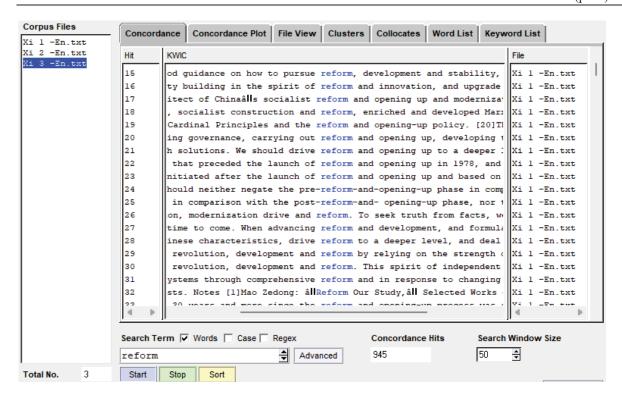


Figure 2. Visualization of Keywords in Chinese Economic Discourse: Reform

In the Chinese database of Volumes I to III, "深化改革" (deepening or furthering reform) appears 210 times, while "reform" appears 883 times in the English database, with occurrences of 425, 260, and 260 in Volumes I, II, and III, respectively. This keyword is concentrated in the early parts of each volume but runs throughout the economic discourse of the text. By further analyzing its collocates, we encounter the following constructs:

- **Verb** + **reform**: drive ... to a deeper level, promote ... in all respects, continue ... in all areas, carry out, launch, advance, further, achieve, support, center on, initiate, carry forward, uphold, introduce, keep on, uphold, ensure, push forward, integrate, seek, extend, adopt, etc.
- **Noun phrases**: Reform and Opening up, the reform and opening-up policy, the reform and opening-up initiative, the reform and opening-up drive, the reform and opening-up move, the reform and opening-up effort, the reform and opening-up period, the reform and opening-up process, the pre-reform-and-opening-up phase, the post-reform-and-opening-up phase, reform and development, reform and innovation, etc.
- Adj. + reform: comprehensive, progressive, systematic, integrated, coordinated, economic, structural, social, financial, supply-side, SOE (state-owned enterprise), all-round, continuous, continued, overall, deeper, profound, etc.



Figure 3. Concordance Plot of the Keyword "reform"

(2) Conceptual Metaphor Network of "Reform"

Contemporary metaphor studies generally propose that metaphors are not just rhetorical devices enriching language expression but are crucial cognitive modes underlying human thought (Lakoff & Johnson, 1980). Chinese economic discourse contains rich metaphorical expressions that vividly describe and elucidate the nuanced meanings behind China's economic reform and development. By "close reading" the context of the 883 occurrences of "reform" in the database, we can derive a collection of conceptual metaphors related to the discourse of "reform": Σ REFORM IS X = {REFORM IS ACTION, REFORM IS TRAVELLING, REFORM IS MARCHING, REFORM IS SAILING, REFORM IS DRIVING, REFORM IS GRAZING, REFORM IS FLYING, REFORM IS PLAYING, REFORM IS GARDENING, REFORM IS BATTLING, REFORM IS EATING, REFORM IS ILLNESS, REFORM IS NAILING, ...}.

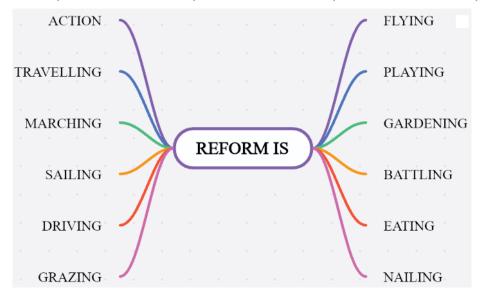


Figure 4. The Conceptual Metaphor Network of Reform

(3) Metaphorical Expressions and Translation Comparison

In Chinese economic discourse, the rhetoric of "reform" contains both shared conceptual metaphors between Chinese and English and unique metaphorical expressions within its specific context. We contend that universally shared conceptual metaphors are relatively easy to understand and translate, and AI can provide appropriate translations. However, for metaphorical expressions that are unique to the context of Chinese reform and culture, AI can assist in enhancing our understanding and rendering of the source texts from Xi Jinping: The Governance of China (Xi, 2014, 2017, 2020).

Source text 1: 改革开放只有进行时、没有完成时。(习近平, 2018)

Source text 1 Romanized: găi gé kāi fàng zhǐ yǒu jìn xíng shí, méi yǒu wán chéng shí.

Target Text: Reform and Opening up is always ongoing and will never end. (Xi, Vol. I)

AI ChatGPT-40: Reform and opening-up is an ongoing process, never a completed one.

AIPE: China's reform and opening-up is an ongoing process rather than a completed one.

Here, the conceptual metaphor of "REFORM IS ACTION" is applied, making the source text easy to understand. Both versions effectively capture the intended meaning and convey it clearly. However, the official translation (TT₁) is slightly softer and more nuanced in terms of the tone, as the AI translation highlights a more gradual and developmental perspective. By post-editing it, we can produce a refined version, i.e., the AIPE version.

Source text 2: 中国改革已进入深水区,可以说,容易的、皆大欢喜的改革已经完成了,好吃的肉都吃掉了,剩下的都是难啃的硬骨头。(习近平,2018)

- Source text 2 Romanized: zhōng guó gǎi gé yǐ jìn rù shēn shuǐ qū, kě yǐ shuō, róng yì de, jiē dà huān xǐ de gǎi gé yǐ jīng wán chéng le, hǎo chī de ròu dōu chī diào le, shèng xià de dōu shì nán kěn de yìng gú tou.
- Target Text: China's reform is sailing in uncharted waters with tough challenges. It can be said that the easy part of the job has been done to the satisfaction of all. What is left are tough bones that are hard to chew. (Xi, Vol. I)
- AI ChatGPT-40: China's reforms have entered deep waters. It can be said that the easy and widely welcomed reforms have already been completed; the good and juicy parts have been consumed, and what remains are the tough bones that are hard to chew.
- AIPE: China's reforms are navigating challenging waters. It can be said that the easy and widely supported reforms—akin to the juicy parts—have been completed, leaving behind the tough bones that are hard to chew.

Compared with the official translation, the AI version stays closer to the original meaning while maintaining clarity and flow; it effectively captures the metaphor of undertaking a challenging phase of reforms, making it accessible to and resonate well with a broader readership. However, considering the sentence structure of AI translation is a bit repetitive and redundant, we post-edit into a refined version.

- Source text 3: 在推进这"四个全面"过程中,我们既要注重总体谋划,又要注重牵住"牛鼻子"。(习近平,2017) Source text 3 Romanized: zài tuī jìn zhè "sì gè quán miàn" guò chéng zhōng, wǒ men jì yào zhù zhòng zŏng tǐ móu huà, yòu yào zhù zhòng qiān zhù "niú bí zi".
- Target Text: In implementing this strategy, we should attend to both general planning and specific, critical problems. (Xi, Vol. II)
- AI ChatGPT-4o: "In promoting these 'Four Comprehensives,' we must focus on overall planning while also paying attention to key points."
- AIPE: In promoting these "Four Comprehensives," we must strike a balance between the broader picture and the finer details.

Comparatively speaking, both the official and AI translations lose the metaphorical depth of the original text, and thus are less poetic. By looking in the dictionaries and chat with AI, the original metaphor can be rendered into "cut off the head of the snake" or "take the bull by the horns", both of which are slightly different from the nuanced meaning underlying the source text. By adopting a more balanced and metaphorical approach, we post-editing the AI translation into a more metaphorical expression that conveys a sense of diligence in planning while also focusing on critical aspects.

- Source text 4: 中国对外开放,不是要一家唱独角戏,而是要欢迎各方共同参与;不是要谋求势力范围,而是要支持各国共同发展;不是要营造自己的后花园,而是要建设各国共享的百花园。(习近平,2017)
- Source text 4 Romanized: zhōng guó duì wài kāi fàng, bú shì yào yī jiā chàng dú jiǎo xì, ér shì yào huān yíng gè fāng gòng tóng cān yù, bú shì yào móu qiú shì lì fàn wéi, ér shì yào zhī chí gè guó gòng tóng fā zhǎn, bú shì yào yíng zào zì jǐ de hòu huā yuán, ér shì yào jiàn shè gè guó gòng xiǎng de bǎi huā yuán.
- Target Text: China's opening up is not a one man show; it welcomes joint efforts from other countries; it is not a fight for spheres of influence, or a means of building a "garden" in its own backyard, but to support the common development of all countries or build a "park" that can be shared by the international community. (Xi, Vol. II)
- AI ChatGPT-4o: China's approach to opening up to the outside world is not about staging a one-man show, but rather inviting all parties to participate; it is not about seeking spheres of influence, but supporting the development of all countries; it is not about creating its own exclusive backyard, but building a garden shared by all nations.

The AI version not only vividly conveys the metaphors, but also reproduces the tone and intention of the original text, that is, by repeating the "not about, but rather" structure thrice, it expresses the original text's reaffirmation of the purpose of China's reform with a serious tone.