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Competition, or Cooperation? Ernie Bot — ChatGPT Relations Represented in *China Daily*'s Coverage of AIGC (2022-2024)

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Abstract

This study combines Critical Discourse Analysis (CDA) and corpus linguistics to examine how *China Daily* communicated the development of Artificial Intelligence Generated Content (AIGC) technology to international audiences between 2022 and 2024. Adopting Van Dijk's socio-cognitive approach as the theoretical framework, the study analyzes the representation of two key AIGC entities, ChatGPT and Ernie Bot, and investigates how their depiction reflects the broader dynamics of the China-US relationship in the context of AIGC development. The corpus consists of 120 news articles from *China Daily*, which were analyzed using keyword analysis, collocation analysis, and concordance analysis to identify linguistic patterns and discursive strategies. The findings reveal that *China Daily* strategically employs specific modalities and collocations to construct distinct representations of ChatGPT and Ernie Bot. ChatGPT is portrayed as a symbol of global AI advancement, while Ernie Bot is framed as a representative of China's independent innovation and technological self-reliance. Through these representations, *China Daily* positions China as a nation emphasizing mutual understanding and cooperative development, in contrast to the United States, which is depicted as prioritizing competition despite limited collaboration in certain areas. Furthermore, the discourse highlights the importance of China-US cooperation in addressing global challenges, such as climate change and the alignment of advanced AI systems, even amidst tensions over high-performance computing chips and semiconductors. These findings underscore the alignment of *China Daily*'s discourse with China's broader strategic goals, including promoting shared development in AIGC technology and advancing the vision of a community with a shared future in cyberspace. By grounding macro-level interpretations in micro-level linguistic analysis, this study demonstrates how discourse shapes perceptions of technological development and international relations, offering insights into the interplay between language, power, and ideology in media representations of AIGC.

Keywords: *China Daily*, corpus linguistics, critical discourse analysis, AIGC, ChatGPT, Ernie Bot

1. Introduction

AI technology has entered a new era after OpenAI, a US-based artificial intelligence company, released the AI model exclusively for

text generation apps — ChatGPT. Since then, numerous types of AI software coming from other nations have been emerging on the market: Sorai that generates video content, Ernie Bot released by Baidu, and Gemini released by Google. This study focuses on Ernie Bot and ChatGPT, the most representative AI language models in China and the U.S., respectively, and prominent subjects in media discourse. Developed by OpenAI, ChatGPT is a generative AI model that employs deep learning to process vast datasets and generate coherent, contextually appropriate language. Ernie Bot, developed by Baidu, functions as a chatbot capable of engaging in dialogue, answering inquiries, and co-creating content. Given their centrality in media narratives on China-U.S. technological competition, ChatGPT and Ernie Bot occupy a pivotal position in public and academic discussions on AI development and geopolitical dynamics, making them the primary focus of this study. According to an article published in *The Wall Street Journal* in 2021, China will soon lead the U.S. in tech. This assertion has been reflected in international media discourse over the past two years, with various perspectives on AI technologies from China and the US shaping public narratives. As a key state-affiliated media outlet, *China Daily* has played a significant role in constructing China's position in this discourse, particularly in its portrayal of AIGC development and its implications for global technological competition.

On the other hand, despite China's rapid progress in AIGC technology, studies on how Chinese media portray the development of AIGC technologies between nations remain limited, especially in terms of how media in foreign languages engage with these matters for an international audience. Based on current research, only one study has investigated the development of AI technologies in China and Germany. The study, conducted by Qiu (2024), titled "Decoding AI Discourse: Analyzing German & Chinese Media (2018-2023) Using Machine Learning Methods", revealed that Chinese media adopt a strategic perspective in their discourse on AI, frequently quoting political leaders and maintaining a consistently positive stance while German media, following the release of ChatGPT, have frequently cited statements from Western tech experts, adopting a more critical and cautious attitude toward AI (Qiu, 2024). Most other related studies focus on AI development within a single country, analyzing their own national media as samples (e.g., Wei, M., Scifo, S, & Xu, Y., 2022; Comfort, Tandoc, & Gruszczyński, 2019; Pandey & Kurian, 2017). Methodologically, these studies predominantly employ content analysis, frame analysis, or qualitative analysis.

As illustrated in Figure 1, given the limited attention paid to how Chinese foreign-language media address the intricacies of emerging AIGC technologies, and the scarcity of studies examining linguistic patterns in this context, this research seeks to explore how *China Daily* illustrates the growth of AIGC technology and relays the Chinese government's position to a global audience by utilizing critical discourse analysis (CDA) and corpus linguistics (CL). The divergence between Chinese-language media for local audiences and English-language media for international audiences is evident in their objectives, content, stylistic approaches, and lexical preferences.

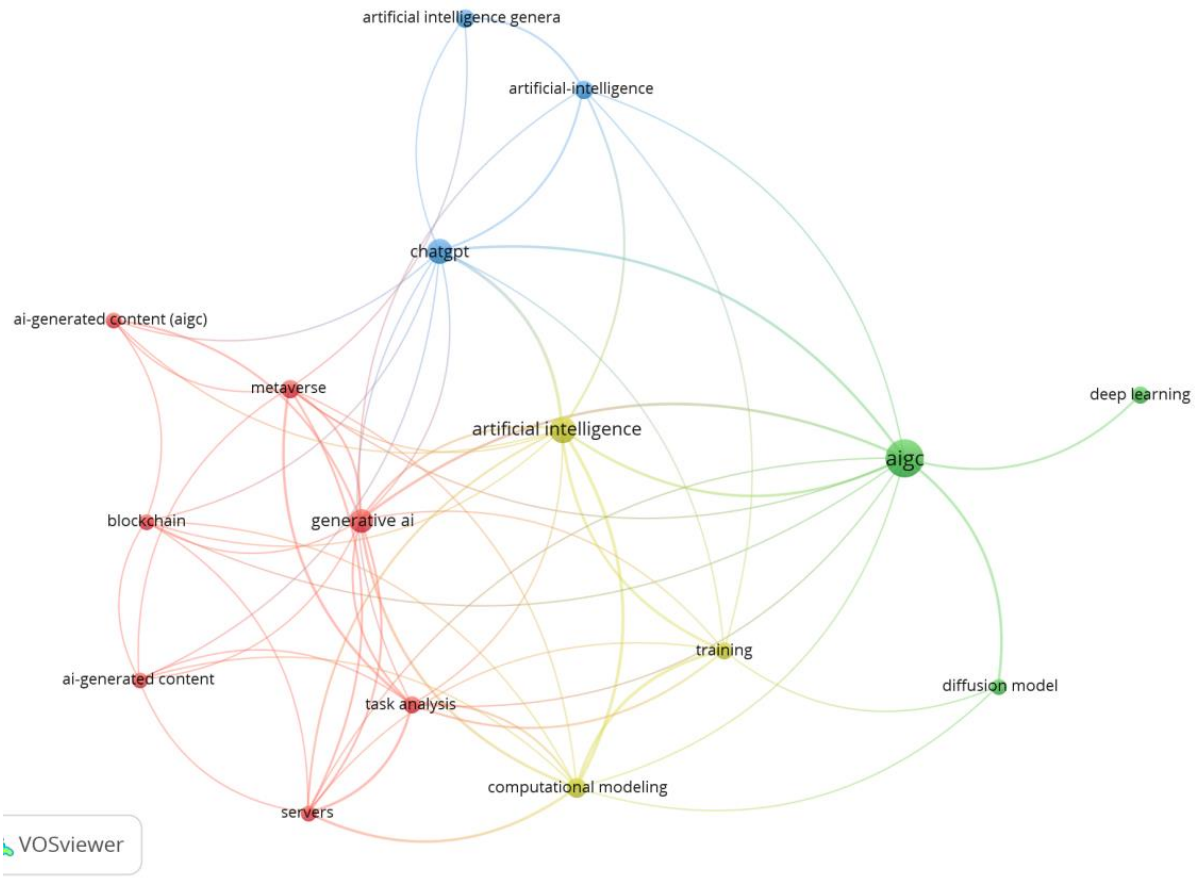

Figure 1. The research about AIGC

2. The Synergy of Critical Discourse Analysis and Corpus Linguistics

Critical Discourse Analysis (CDA) is a socially-oriented approach to discourse analysis that examines the relationship between language, power, and ideology. While CDA encompasses a wide range of theoretical frameworks, this study adopts Van Dijk's socio-cognitive approach, which emphasizes the interplay between discourse, cognition, and society. Van Dijk's framework posits that discourse is not only shaped by social structures but also mediates social cognition, thereby influencing power relations and ideological reproduction. To operationalize this approach, the study integrates corpus linguistics, which provides quantitative tools to identify and analyze linguistic patterns that reflect underlying ideologies and power dynamics.

The integration of corpus linguistics with CDA, first proposed by Hardt-Mautner (1995), bridges the gap between quantitative and qualitative research. Corpora enable the systematic identification of recurring linguistic features, such as lexical choices, collocations, and semantic prosodies, which are crucial for uncovering implicit meanings and ideological biases in discourse (Hunston, 2002: 123). By combining Van Dijk's socio-cognitive framework with corpus linguistic methods, this study aims to analyze how specific linguistic patterns in large-scale discursive materials reflect and reinforce social power and ideology. For instance, the study employs corpus tools to examine keywords, concordances, and collocations, which are then interpreted through the socio-cognitive lens to reveal how discourse producers construct and perpetuate particular ideological positions.

Internationally, corpus-based CDA research has been applied to topics such as gender (Al-Hejin, 2015; Mustafa-Awad & Kirner-Ludwig, 2017), refugees (Baker & McEnery, 2005; Baker et al., 2008), and religion (Krishnamurthy, 1996; Salama, 2011). In the Chinese context, studies have focused on Western media representations of China's development, the Belt and Road Initiative, and the Chinese economy (Shao Bin & Hui Zhiming, 2014; Qian Yufang & Huang Xiaoqin, 2016; Hou, 2019). Building on these

precedents, this study leverages the synergy of CDA and corpus linguistics to enhance the objectivity, depth, and validity of discourse analysis, offering a more nuanced understanding of the complex relationships between language, power, and ideology.

3. Data and Methodology

This study combines Critical Discourse Analysis (CDA) and Corpus Linguistics (CL) to address three targeted questions: (1) How does *China Daily* generally report on AI-generated content (AIGC)? (2) How are the two entities, *ChatGPT* and *Ernie Bot*, depicted in the context of AIGC reporting? (3) Does the development of AIGC technology reflect the relationship between China and the United States? If so, what kind of relationship is reflected?

Firstly, the study extracted relevant reports from *China Daily*'s electronic database Factiva using *AIGC* and *AI* as a keyword, thereby constructing the research corpus. The data covers the period from January 1, 2022, to August 20, 2024. This span was chosen because since the introduction of ChatGPT by OpenAI in 2022, AIGC technology has received widespread media attention, with 2023 and beyond marking a period of rapid development for AIGC technologies. After manually filtering out unnecessary information such as publication dates, authors, and copyright details, the *China Daily* AI Corpus (CDAIC) was formed, comprising 188 articles and 139,396 lexical units. Based on a reading of the corpus and pilot studies, ChatGPT and Ernie Bot were selected for further analysis, as they represent the two main entities in *China Daily*'s coverage of AIGC technology.

Secondly, an overview analysis of the corpus was conducted to observe whether ChatGPT and Ernie Bot are depicted as two keywords within the corpus. The study generated a keyword list by comparing CDAIC with the BNC2014 Baby+ general corpus (which contains 5,024,072 lexical units) in #LancsBox 6.0. #LancsBox 6.0 is a next-generation corpus analysis tool developed by Lancaster University, featuring visualized collocation networks and statistical functions (Brezina, McEnery & Wattam, 2015). Keywords are defined as words whose relative frequency is significantly higher in one corpus compared to another (Baker, Gabrielatos & McEnery, 2013: 72). To ensure the keywords are representative of CDAIC, the study employed three criteria: keyness, relative frequency, and contextual diversity (Subtirelu & Baker, 2018: 113). In calculating keyness values, Kilgarrif's Simple Maths Parameters (SMP) were used, with a constant of 1000, as SMP values are easier to interpret than log-likelihood statistics (Brezina, 2018: 85). Additionally, contextual diversity (i.e., range %) measures the dispersion of a word across the corpus (Brezina, 2018: 48). Given the size of CDAIC, the analysis was limited to words that appear at least 500 times per million words in at least 20% of the texts.

To address the second research question, the study's third phase involved creating collocation networks for ChatGPT and Ernie Bot to analyze their representation in media reports. According to Brezina, McEnery & Wattam (2015), collocates should be analyzed within broader collocational networks rather than in isolation. These networks can be visualized using #LancsBox after configuring the Collocation Parameter Notation (CPN). Following this, additional collocation and co-occurrence analyses were performed for both entities.

As for the third question, the study conducted a detailed analysis of the collocates associated with the phrases ChatGPT and Ernie Bot, as well as the sentences containing these phrases and their collocates.

4. Findings

4.1 Representations of ChatGPT and Ernie Bot

The keyword analysis reveals significant patterns in how *China Daily* reports on AIGC technology and its implications for the China-US relationship. **Table 1** lists the 30 highest-ranking keywords based on their Statistical Measure of Prominence (abbreviated as SMP) values. Notably, ChatGPT ranks third, highlighting its prominence in the corpus as a symbol of global AI advancement. In contrast, Ernie Bot does not appear among the top keywords, but its association with Baidu (ranked 18th) suggests an implicit link to China's domestic AI efforts. This indicates that while ChatGPT is foregrounded as a leading global technology, Ernie Bot is positioned as a representative of China's independent innovation in AI.

Table 1. The 30 highest-ranking lexical keywords in the corpus

Rank	Keyword	Relative frequency in CDAIC frequency in CDAIC	Relative frequency in BNC2014 Baby+	Range %	SMP
1	ai	134.65	0.02	89.89	13.25
2	China	50.22	0.60	79.26	3.19
3	ChatGPT	29.20	0.00	68.09	3.02
4	Chinese	42.97	0.50	74.47	2.90
5	technology	46.20	0.88	85.64	2.50
6	generative	21.31	0.03	46.81	2.10
7	computing	23.17	0.24	38.30	1.94
8	artificial	17.86	0.14	87.23	1.66
9	technologies	19.23	0.35	56.91	1.50
10	companies	23.67	0.70	61.17	1.45
11	models	23.67	0.79	53.72	1.38
12	industry	23.10	0.75	61.70	1.38
13	intelligence	17.93	0.38	77.66	1.37
14	digital	26.04	1.02	52.13	1.34
15	development	34.94	1.76	73.94	1.30
16	innovation	12.77	0.14	40.96	1.21
17	global	22.67	0.97	49.47	1.20
18	Baidu	10.76	0.00	32.98	1.17
19	content	18.29	0.83	48.94	1.06
20	chatbot	9.47	0.00	43.62	1.05
21	language	18.87	0.98	52.66	1.00
22	market	22.74	1.53	52.13	0.94
23	ai-generated	8.25	0.00	31.91	0.92
24	Beijing	8.82	0.08	30.85	0.91
25	OpenAI	7.68	0.00	43.09	0.87
26	products	12.20	0.52	38.30	0.87
27	company	20.52	1.57	59.57	0.84
28	efforts	10.83	0.48	44.68	0.80
29	applications	9.54	0.32	39.89	0.80

The term development occupies the 15th position in Table 1 with 289 occurrences, underscoring its centrality in the discourse on AIGC. To explore its semantic associations and the underlying China-US dynamics, we analyzed its collocates using CPN (Collocation Profile Norms) settings: 3-MI (4), L5-R5, and C15-NC15. **Table 2** and **Figure 2** display the 18 most salient collocates of development, ranked by Mutual Information (MI) values. MI, a statistical metric, quantifies the strength of collocation by examining the co-occurrences of words across the corpus (Baker, 2006: 101).

Table 2. Collocates of development in the corpus

Rank	Collocate	MI	Freq (coll.)	Freq (corpus)

1	healthy	7.70	19	26
2	rapid	7.43	26	43
3	high-quality	6.57	17	51
4	promote	6.00	18	80
5	economy	5.20	15	116
6	innovation	5.20	23	178
7	research	5.05	37	318
8	China's	4.76	26	273
9	application	4.68	15	167
10	generative	4.53	24	297
11	models	4.49	26	330
12	industry	4.47	25	322
13	ai	4.44	143	1877
14	technology	4.41	48	644
15	of	4.38	321	4411
16	large	4.10	16	266
17	and	4.09	287	4818

The collocation analysis reveals that development is closely linked to technology, quality, and China's role, reflecting a focus on technological progress and China's contributions to AIGC. However, the discourse predominantly emphasizes the speed of development (e.g., rapid development, with an MI of 6.57 and 17 occurrences) rather than its qualitative impact on industries. For instance, Example (1) illustrates how AIGC is framed as a driver of progress in specific sectors, such as gaming, but does not explicitly address its broader industrial applications:

(1) Citing the new report, Wang Xu of Gamma Data said AI-generated content will significantly boost the high-quality development of gaming content, adding that over 60 percent of leading Chinese gaming firms have already tapped into AIGC fields. (*China Daily*, 2023)

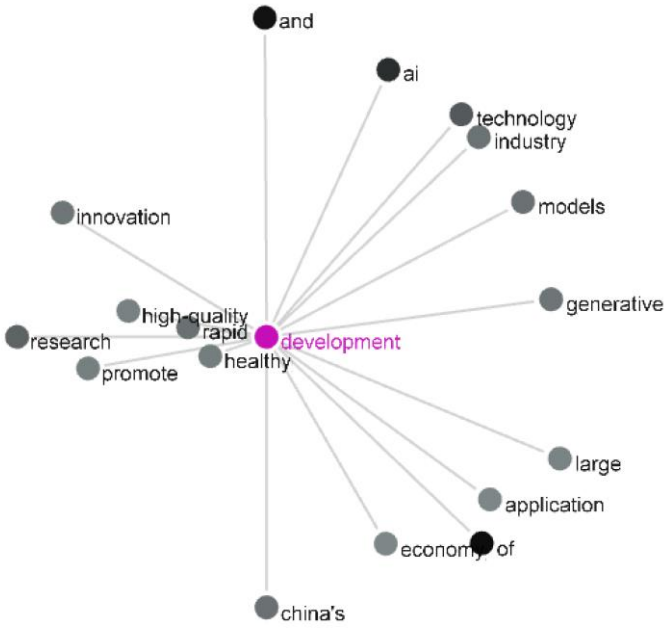

Figure 2. Collocates of development in the corpus

To comprehensively illustrate *China Daily*'s representation of ChatGPT and Ernie Bot, **Figure 3** presents their respective collocation networks. To ensure the operational validity and analytical relevance of the generated networks, the parameters for Ernie Bot's collocation network were configured as 03-MI (6), L5-R5, and C7-NC7, while those for ChatGPT were set to 03-MI (6), L4-R4, and C7-NC7.

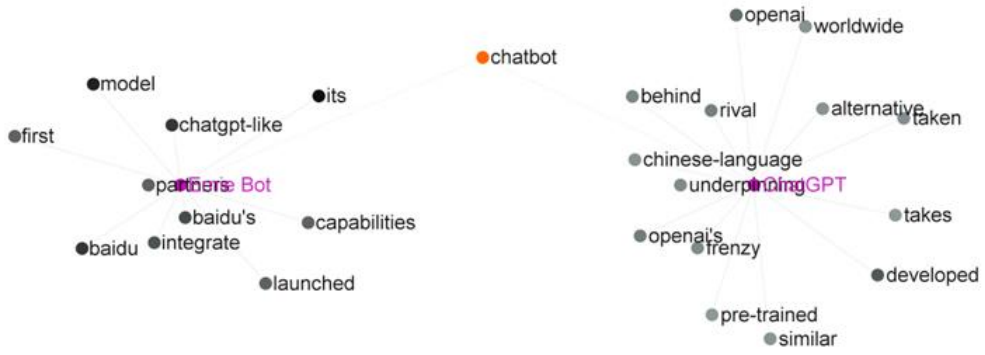

Figure 3. The collocation networks of Ernie Bot and ChatGPT in the corpus

Figure 3 illustrates that Ernie Bot possesses 11 first-order collocates and one shared collocate, whereas ChatGPT exhibits 15 first-order collocates and one shared collocate. These collocates can be broadly categorized into four groups according to the themes of the sentences in which they appear (as presented in **Table 3**): the first category is relation, the second is status, the third is popularity, and the fourth is mode.

As illustrated in **Figure 3** and **Table 3**, the content related to Ernie Bot emphasizes the cooperation mode of Chinese companies in the development of key technologies globally, China's willingness and preparedness in exploring AIGC technology (as indicated by *partner*), and China's international relations with the desire to collaborate with the world. Specifically, regarding the United States, the content highlights China's eagerness to work together in governing AI, jointly creating a favorable AI environment for the world, demonstrating China's responsibility in the development of AIGC (as indicated by *integrate*). Furthermore, Ernie Bot and ChatGPT are also presented as symbols of the cooperative relationship between China and the United States in the development of AIGC technology.

Table 3. Categorization of first-order collocates of China and the US

Categories	Ernie Bot	Collocates	ChatGPT
relation	Partner, integrate		
status	first		alternative
popularity			frenzy
Mode	ChatGPT-like		Pre-trained, chatbot

Relation: *Partner* emerges as the first-order collocates for Ernie Bot (MI=9.42). By emphasizing the close connection between Ernie Bot and partner, *China Daily* conveys the attitude of Chinese technology companies that seek cooperation and mutual benefit in the global technology competition. This narrative approach not only demonstrates China's confidence and openness in technological innovation but also reflects the vision of Chinese enterprises committed to achieving common progress through partnerships in the context of globalization. A deep analysis of these seven data points reveals that Ernie Bot's role in various collaborations extends beyond technical support, encompassing ecosystem development,

cross-industry collaboration, and resource sharing. This multi-layered and multi-dimensional framework of cooperation highlights Baidu's significance in promoting the application of AI technology and reflects *China Daily*'s high recognition of the spirit of cooperation in its reporting, further strengthening the positive image of Ernie Bot in the global AI competition. In summary, the frequent co-occurrence of Ernie Bot and partner reflects China's strategic thinking of emphasizing cooperation in technological development. This not only showcases the global perspective of Chinese technology enterprises but also provides valuable insights into how China balances competition and cooperation in the international technology competition. Example (2) and (3) are selected as an illustration.

(2) Midea Group, a Chinese home appliance maker based in Foshan, Guangdong province, is among the **first** team of partners for Ernie Bot, an AI chatbot launched in March by tech heavyweight Baidu Inc.

In Example (2), AI and ChatGPT-related technologies are anticipated to alleviate individuals from monotonous tasks, thereby enabling a greater focus on creative endeavors. These technologies demonstrate substantial application potential across diverse sectors including culture, retail, finance, healthcare, and education. The collaboration between home appliance manufacturers and developers of conversational chatbots is expected to catalyze the intelligent transformation of China's home appliance industry. The principle of "responsible AI," as articulated by China's New Generation Artificial Intelligence Governance Committee, provides a framework for stakeholders in shaping regulatory guidelines for generative AI (Dai Jinping; Qin Yangyang, 2023). Specifically, companies across various sectors are actively pursuing partnerships with leading technology firms to harness cutting-edge AI technologies. This collaborative dynamic highlight that enterprises from different industries are progressing in the realm of intelligent technology through alliances with technology giants, thereby enhancing their market competitiveness. This prevalent trend of cooperation underscores a common practice within the technology supply chain, where industries establish partnerships to advance technology application and drive business development.

(3) AIBANK, a Beijing-based digital bank, said it has become one of the **first** ecological partners of Ernie Bot, an AI chatbot project developed by Baidu Inc. (*China Daily*, 2023)

From Example (3), it is apparent that Ernie Bot's collaboration model extends beyond the furniture sector and is progressively infiltrating the financial domain, representing a significant achievement in the continuous advancement of AI technology. AIBANK's designation as the first ecological partner of Baidu's AI chatbot project, Ernie Bot, signifies the bank's proactive engagement and establishment of a close partnership from the project's inception. This reflects AIBANK's leading position and foresight in digital transformation and AI applications. As an early adopter, AIBANK's collaboration with Ernie Bot is expected to become increasingly profound and integrated, jointly exploring and developing novel application scenarios and business models. This partnership not only enhances AIBANK's competitive edge and innovative capacity within the financial industry but also provides substantial support for the promotion and deployment of the Ernie Bot project. Furthermore, the term *first* underscores the close, timely, and innovative nature of the collaboration between AIBANK and Ernie Bot, highlighting the extensive prospects and considerable potential of their partnership in the field of artificial intelligence. This collaborative model is poised to inject new vitality and momentum into the development of various industries and the AI sector.

Regarding ChatGPT, *rival* is its third most frequent collocate (MI=8.12). In the instances where *rival* and *ChatGPT* co-occur in the corpus, the term appears 13 times (93%), which reflects the newspaper's emphasis on ChatGPT and its competitive dynamics within the market. By identifying *rival* as the third most frequent collocate of ChatGPT and noting their frequent co-occurrence in the corpus, the report accentuates ChatGPT's significant market position and the competitive environment it navigates. This, in turn, stimulates public interest in ChatGPT's technology, its market applications, and its competitive standing within the industry. Furthermore, by highlighting the association between ChatGPT and its competitors, the report suggests that ChatGPT's technological innovation and market impact are central to its extensive scrutiny and

comparison, as demonstrated in Example (4).

(4) Chinese tech heavyweight Baidu Inc will roll out the latest version of its large language model, Ernie 4.0 seen as a potential **rival** to ChatGPT — by the end of this year, and further intensify its efforts in generative artificial intelligence technology, said the company's top executive.

In this example, the phrase *a potential rival* shows that *China Daily* frames Ernie Bot, developed by Baidu, as a potential competitor to ChatGPT, thereby underscoring Baidu's technological advancements and specific achievements in artificial intelligence. Furthermore, Baidu is set to intensify its investment in generative AI technologies, aiming to secure a larger market share and enhance its brand competitiveness. In the context of both international collaboration and competition, Baidu intends to sustain its capacity for independent innovation while actively seeking partnerships and exchanges with global counterparts to bolster its position in the international market.

Status. In relation to Ernie Bot, as illustrated in Figure 3, the term *first* predominantly collocates with "Ernie Bot" through the word "partner." According to systemic functional grammar, ordinal numbers are employed to denote sequence (Halliday & Matthiessen, 2004: 147). Among the seven instances where *first* and *Ernie Bot* co-occur, the collocating phrase is "first [noun] of partner for Ernie Bot." The analysis reveals that the subjects preceding this phrase originate from various industries, signifying that Ernie Bot's extensive cross-industry applications not only reflect its technical prowess and versatility but also indicate that Ernie Bot is progressively constructing a diversified ecosystem of application scenarios. This development is driving the deeper integration and innovative advancement of AI technology across multiple domains. Example (5) has been selected as an illustrative example.

(5) Midea is also among the **first** batch of partners for Ernie Bot. The company said its smart home products and family service robots will have access to Ernie Bot, which has shown its capabilities in fields including literary creation, business writing, mathematical calculations and Chinese language understanding. (*China Daily Global*, 2023)

In example (5), the phrase *the first batch of partners for Ernie Bot* conveys that Ernie Bot is being explored and applied as a preferred or initial partner across multiple industries. The expression *has access to* indicates Ernie Bot's willingness to collaborate and share with various sectors. This wording underscores the collaborative and open approach of the Chinese AI industry towards the development of AIGC.

Concerning ChatGPT, alternative ranks as its fourth most frequent collocate (MI = 7.72). Among the eight instances where *alternative* and *ChatGPT* co-occur, the phrase *ChatGPT alternative* appears five times (57%). In these five instances, Ernie Bot is consistently positioned as an appositive to *ChatGPT alternative*. This suggests that *China Daily* acknowledges ChatGPT's leading status in both technological advancement and development timeline, while simultaneously emphasizing that Ernie Bot's AIGC technological capabilities are nearly on par with those of ChatGPT. This also subtly reflects China's proactive and strategic engagement in the global AI technology competition. Example (6) illustrates this point:

(6) Last month, Baidu unveiled its large language model and Chinese-language **ChatGPT alternative**, Ernie Bot, which could be implemented in a variety of functions including searches, autonomous driving and smart devices. (*China Daily*, 2023)

Example (6) illustrates the newspaper's portrayal of Chinese companies' ambition and capabilities within the global technology market, emphasizing their anticipated progress and advancement. Simultaneously, it implies that Ernie Bot, as a Chinese alternative to ChatGPT, reflects the competitive dynamics between China and the US in the domain of artificial intelligence technology.

Popularity. *Frenzy* frequently collocates with ChatGPT in **Table 3**, highlighting the global excitement surrounding this technology. Analysis of these collocations reveals that such patterns are used to illustrate the differences between ChatGPT and Ernie Bot, and to provide guidance for the technological advancement of Ernie Bot. This analysis underscores ChatGPT's leading position in both technology and market, while also identifying potential areas for further development of Ernie Bot. Excerpt (7) is provided as an example.

(7) Ouyang Minggao, an academician at the Chinese Academy of Sciences and a professor at Tsinghua University, said the worldwide frenzy surrounding ChatGPT will have a far-reaching

impact on intelligent driving this year, making the programming of self-driving technology simpler, and leading to a new AI revolution. (*China Daily Global*, 2023)

Example (7) underscores the term *frenzy* to highlight the extensive global interest and intense attention that ChatGPT has generated. This reflects that the technology has elicited considerable excitement and anticipation not only within the technological domain but also across a wider range of societal and industrial contexts. F*ar-reaching* further implies a long-term impact, suggesting that the resultant changes and effects are not ephemeral but will endure and progressively reveal their significance. This indicates that ChatGPT is poised to exert a substantial influence on technological development and industry trends over an extended period. An analysis of the co-occurrence of *ChatGPT* and *frenzy* shows that this collocation frequently appears in contexts that describe the worldwide (The co-occurrence of *worldwide* and *frenzy* in six instances) attention and reactions to ChatGPT. Specifically, *frenzy* denotes the heightened interest from both public and industry sectors regarding ChatGPT's technology, as well as the elevated expectations and sense of urgency concerning its potential impact. This usage highlights ChatGPT's prominence in the global technology market and the broad discussions it has engendered. The collocates emphasizes ChatGPT's role as a disruptive technology and its considerable potential to drive advancements in artificial intelligence technology and its applications.

In contrast, the analysis of Ernie Bot's collocates reveals a lack of prominent intensity modifiers, which may be attributed to the constraints of the corpus size. Nevertheless, the examination of the corpus indicates that the *China Daily* includes nouns such as *capability* and *access* in its coverage of Ernie Bot, suggesting a high level of acceptance and popularity of Ernie Bot within the domain of AIGC.

4.2 Representations of China-US Relations

As established earlier, Ernie Bot and ChatGPT are products of Chinese and American companies, respectively. A comprehensive analysis of the corpus indicates that the terms *China and the US* appear with notable frequency, suggesting that the relationship between Ernie Bot and ChatGPT may indirectly reflect the dynamics between China and the United States. Within the CDAIC corpus, the phrase *China and the US* occurs 17 times. Subsequently, we computed the log-likelihood value using BNC2014 Baby+ as the reference corpus ($p < 0.0001$), resulting in a value of 1060.23. Under the settings CPN=03-MI (4), L5-R5, and C6-NC6, six collocates were identified, as illustrated in **Table 4**.

Table 4. Collocates of China and the US in the corpus

Rank	Collocate	Stat	Freq(coll.)	Freq(corpus)
1	ZGAP	10.42	6	36
2	between	9.07	8	122
3	development	6.66	6	487
4	ai	5.45	10	1877
5	to	4.29	9	3776
6	in	4.17	7	3189

The collocates of *China and the US* include terms indicating the relationship between China and the United States, such as *development* and *gap*. Among these, the strongest collocate, *Gap* (MI = 10.42), co-occurs with *China and the US* six times. Analysis of the corpus reveals that *China Daily* emphasizes the gap between China and the US in specific technological domains or directions, as illustrated by the following two excerpts:

(8) The gap between **China and the US** in AI mainly lies in (tech) direction. (*China Daily*, 2024)

(9) Considering that transformer, Sora or Sora-like products are all fundamentally 'software', such an AI gap between **China and the US** can be bridged within one to two years. (*China Daily*, 2024)

(10) There is a gap between **China and the US** in terms of AI development. But the gap is not as

big as the one in semiconductor lithography machines. (*China Daily*, 2024)

In Example (8), the gap between China and the United States in the field of artificial intelligence (AI) primarily lies in the technological direction. This indicates that the two countries differ in their strategic approaches and priorities regarding AI development. *China Daily* uses the adverb *mainly* to emphasize that the most evident disparities at the current stage are technological, while other, more nuanced but significant differences may still be present and require further exploration. In Example (9), *China Daily* notes that the AI gap between China and the United States, particularly in video generation AIGC technologies based on Transformer, Sora, or similar products, which are fundamentally software, could be narrowed within one to two years. This suggests that although a gap exists, it is not insurmountable due to the replicable and software-driven nature of these technologies. Similarly, Example (10) acknowledges the gap between China and the United States in AI development but observes that this gap is not as pronounced as the one in semiconductor lithography machines. This indicates that while there is a gap in AI between the two countries, it is relatively smaller compared to other advanced technological fields, such as semiconductor manufacturing.

The preposition *between* exhibits a strong association with *China and the US* (MI=9.07). In the five instances where *China and the US* co-occurs with *between*, the phrase *between China and the US* appears eight times (57%). Of these occurrences, six instances are preceded by the noun *gap*, as demonstrated in Example (11).

(11) Why weren't groundbreaking technologies such as Sora and ChatGPT created in China? How long will it be before China's equivalent of Sora comes out? Is the AI *gap* between China and the US widening? (*China Daily*, 2024)

Example (11) illustrates the anxiety experienced by Chinese netizens following the release of Sora, a video content generation AI developed by OpenAI, as well as their expectations and focus on domestic technological innovation capabilities. This also underscores the rapid advancement and increasingly competitive nature of AI technology on a global scale.

Furthermore, in the analysis of prepositional collocations, *in* appears in conjunction with *China and the US* in five instances, with the phrase *China and the US in [noun]* occurring three times. An examination of these three instances reveals that *China Daily* may be using the preposition *in* to construct a shared framework encompassing both China and the US — specifically within the context of AIGC development. This approach appears to explore how the two nations interact, either through cooperation or competition, within this framework and how such interactions influence the broader international landscape. This reporting strategy facilitates a more nuanced and multidimensional understanding of the complexities in China and the US relations for the readers. The following is an example:

(12) "The main **gap** between China and the US in AI lies in the original direction for AI technology," Zhou said on the sidelines of the annual session of the National Committee of the CPPCC, which opened on Monday.

In Example (12), the phrase *original direction* pertains to the originality and innovation in AI technology research and development between the two countries. This highlights the diverse gaps and underlying reasons for these differences in AIGC between China and the US, while also suggesting that such disparities are potentially bridgeable. The excerpt, sourced from an interview with Zhou Hongyi, founder and chairman of 360 Security Technology and a national political advisor, conducted on February 23, 2024, states: "ChatGPT's strength lies in its extensive knowledge, yet it lacks specialization. The year 2024 is anticipated to be the Year of Application for Chinese AI, with large models expected to exhibit significant potential across numerous vertical sectors within enterprises. Consequently, China is well-positioned to surpass GPT-4.0 in certain vertical domains." By quoting the remarks of a leading technology professional, *China Daily* adopts a positive and objective tone, which underscores the newspaper's definitive and impartial perspective on China-US relations.

5. Discussion

The results of the study suggest that *China Daily*'s reporting on the development of international AIGC not only addresses the relationship between Baidu's Ernie Bot and OpenAI's ChatGPT but also reflects the intricate dynamics between China and the United States. Despite the competition between the two countries in areas such as technology and

semiconductor development, *China Daily* places greater emphasis on the potential for mutually beneficial cooperation. The newspaper employs a binary opposition of positive and negative, portraying China as a nation that prioritizes the pursuit of common ground while respecting differences, and is committed to fostering collaborative, win-win relationships, particularly amid intensifying global competition in the advancement of large language models and AI technologies.

Conversely, while acknowledging the importance of cooperation, *China Daily* depicts the United States as a country that, while valuing collaboration, leans more towards competition, seeking to secure a leading position in this field to gain economic and strategic advantages. The newspaper further emphasizes that technological cooperation between China and the United States is essential for the progress of the global AI sector, even though competition persists in areas such as semiconductor development.

Additionally, *China Daily* contends that the ongoing competition between China and the United States may impede the development of global AI technology and the advancement of human society, underscoring the need to avert such a scenario.

Within the analytical framework of systemic functional linguistics, the relationship between Ernie Bot and ChatGPT, along with the broader China-US relations they symbolize, are discursively constructed. As Halliday & Matthiessen (2004) observe, "language is a resource for meaning-making, and meaning is realized through patterns of systemic choice." This study reveals that the selection of modal verbs, such as the frequent use of "will" in association with Ernie Bot, suggests its portrayal as a positive agent. Furthermore, a detailed analysis of the recurrent collocation patterns between Ernie Bot and ChatGPT within the corpus enables a clear delineation of the relationship between these two AI systems, which, in turn, reflects the international relations between China and the United States. The shared collocates of Ernie Bot and ChatGPT indicate not only a technological equivalence but also underscore *China Daily*'s emphasis on the intricate connections and marked differences between the two nations in AI development. The linguistic variations encapsulate distinct ideological meanings, leading to significant divergences in their discursive representations.

Objectively, since the introduction of ChatGPT, there has been a rapid increase in global investment in AI-generated content (AIGC) technology. In response, China has developed Ernie Bot, continually enhancing and optimizing its algorithms and database, thus achieving notable advancements and a significant position in the international AI technology domain. Following the release of the *Guidance on Actively Promoting Internet Plus Action Plan* by the State Council in July 2015, which prioritized artificial intelligence as a key task, China's AI sector has entered a new developmental stage. This was furthered by the issuance of several related policies. Notably, in July 2017, the State Council published the *Development Planning for a New Generation of Artificial Intelligence*, which established a three-phase strategic framework for AI development, elevating it to a national strategic priority. The plan set forth objectives for AI to achieve world-leading standards in theory, technology, and application by 2030, and to become a major center for AI innovation. During the 13th Five-Year Plan period, the National Plan for Science and Innovation and the Plan for National Strategic Emerging Industries outlined the objectives of advancing AI, fostering an AI industry ecosystem, and promoting the comprehensive integration of AI technologies across various sectors. Key tasks included achieving significant breakthroughs in human-like intelligent methods driven by big data analysis. In the 14th Five-Year Plan period, the focus is on continuing advancements in research and development, iterative application, and deepening the penetration of AI technologies across multiple scenarios.

According to data published by the China Academy of Information and Communications Technology, China's core AI industry reached a scale of 578.4 billion RMB in 2023, reflecting a growth rate of 13.9%. A report by McKinsey projects that by 2030, generative AI is expected to contribute approximately $7 trillion to the global economy, with China anticipated to contribute approximately $2 trillion, accounting for nearly one-third of the global total.

The development of the AI industry in China is guided by two key national-level policies: *Development Planning for a New Generation of Artificial Intelligence* and *Three-Year Action Plan (2018-2020) for Promoting the Development of a New Generation of Artificial Intelligence*. The

implementation of these policies has significantly advanced AI technology and facilitated its practical application within China. Notably, the *Development Planning for a New Generation of Artificial Intelligence* represents the first comprehensive national strategy in the AI domain, serving as a foundational document aimed at establishing China's early advantages in this field. This policy provides a systematic framework and strategic guidance for the development of new AI technologies by 2030, outlining the overall strategic approach, key objectives, major tasks, and support measures necessary for achieving these goals. The *Development Planning for a New Generation of Artificial Intelligence* sets forth a "three-step" target: by 2020, China's AI technology and applications should be on par with the world's advanced levels; by 2025, significant breakthroughs in fundamental AI theories should be achieved, with certain technologies and applications reaching a globally leading standard; and by 2030, China's AI theories, technologies, and applications are expected to attain overall global leadership, establishing the country as a major center for AI innovation.

The *China Daily*'s reporting on China's cooperative principles is, to a considerable extent, shaped by the concept of a "Community of Shared Future for Mankind," introduced at the 19th National Congress of the Communist Party of China in October 2017. This concept embodies not only a value system but also China's proposed framework for global governance, advocating for nations to jointly address global challenges within the context of increasing interdependence and interaction in a globalized world, thereby promoting the sustainable development of human society. Consequently, the *China Daily* emphasizes the positive dimensions of the Community of Shared Future for Mankind, focusing on constructing an image of China as a proud and proactive global actor. At the same time, this concept underscores the creation of a new form of international relations centered on multilateralism, cooperation rather than confrontation, and collective responses to global issues, thereby portraying China as a responsible and cooperative participant in global affairs.

Furthermore, the *China Daily*'s focus on China-US collaboration in the AIGC sector is indicative of the Community of Shared Future in Cyberspace concept, as outlined by President Xi Jinping in his address to the 2022 World Internet Conference in Wuzhen. This concept underscores China's contribution to global peace, development, and the progress of human civilization. The successful realization of a Community of Shared Future for Mankind requires a stable and conducive international environment, making the cooperative and mutually beneficial relationship between China and the United States essential for addressing critical global challenges, including advancements in key AIGC technologies.

6. Conclusion

This study investigates how *China Daily* communicates climate change issues to international audiences during the period from 2022 to 2024. By focusing on this specific domain of China's official English-language newspaper, the research addresses a gap in the existing literature and contributes to the field of climate change media communication through an analysis of the discourse surrounding China's and the US's AIGC (Artificial Intelligence Generated Content) software, their relationship, and China-US relations. Utilizing methods from Critical Discourse Analysis (CDA) and Corpus Linguistics (CL), the study identifies that *China Daily* employs specific modal verbs and collocates associated with Ernie Bot and ChatGPT to indirectly construct China as a cooperative and win-win major power, while characterizing the US, where ChatGPT is based, as a highly competitive nation. The study underscores the importance of collaboration between Chinese and American AI companies in the development of AIGC. The reporting style of *China Daily* on AIGC advancements and technological innovations aligns with the broader vision of a community with a shared future for mankind, a principle actively promoted by the Chinese government. According to *China Daily*, China boasts some of the world's leading AI talent. However, addressing the challenges of aligning advanced AI systems necessitates collaboration among the brightest minds globally. This is particularly critical as high-performance computer chips, or semiconductors, have become a focal point of geopolitical tensions.

Finally, this study has limitations. The corpus data used for comparison between #LancsBox and the self-constructed CDAI corpus is only updated until 2014, and the database does not

include newer terms such as ChatGPT and AIGC. Consequently, future research should consider utilizing more recent and comprehensive corpora to explore potential new findings in Chinese media coverage of AIGC.

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