



# “Language, Technology, and Metaphors We Live By”: A Corpus-Based Critical Metaphor Analysis of AI-Related News Discourse in *China Daily* and *The New York Times*

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## Abstract

AI has been transformed from a technical pursuit into a focal point of political and societal issues. Given AI’s pivotal role in the fourth industrial revolution, media representations are instrumental in shaping public perception and national policy. China and the U.S., as two major global powers, are engaged in an “AI arm race”. Their media outlets provide distinct lenses through which AI is conceptualized. This study compares the conceptual metaphors in AI-related discourse across *China Daily* (CD) and *The New York Times* (NYT) through a corpus-based critical metaphor analysis, with particular attention to the paragraphs containing top 25 keywords in each corpus. Findings show that CD prioritizes macro-strategic topics centered on AI, predominantly employing BUILDINGS AND CONSTRUCTION, FORCES, TRAVEL, PLANTS and PERFORMANCE metaphors. In contrast, NYT highlights commercial and political topics centered on OpenAI, favoring TRAVEL, BUILDINGS AND CONSTRUCTION, WAR, ANIMALS and GAMES AND SPORT metaphors. These findings highlight how distinct social contexts influence the conceptual metaphors representing AI, providing critical insights for global AI governance and intercultural communication.

## Subject Areas

Linguistics

## Keywords

AI, Conceptual Metaphors, *China Daily*, *The New York Times*

## 1. Introduction

Artificial intelligence (AI) propelling the fourth industrial revolution [1] has been reshaping humans' everyday life through enhanced efficiency and scalability, as well as through inherent challenges such as algorithmic bias and ethical accountability, thus exerting influence on the whole society. In particular, the advent of ChatGPT released by OpenAI in 30 November 2022 can be regarded as a catalyst in the transitions of AI from a technical domain to a broad societal application, which resonates with the sociological [2] or sociotechnical [3] perspectives promoting science and technology studies (STS) in terms of AI-related issues. According to Felt *et al.* (2017: p. 1) [4], STS not only examines how science and technology influence our society, but also explores how cultural cognition, social structures and institutional backgrounds engage scientific and technological practices. Within this conceptualization, science communication can be understood as a bridge between expert communities and the general public, facilitating the communication of scientific knowledge and updating public perceptions. These perceptions further constitute the primary focus of news media in the present study.

News media can shape public perceptions and institutional priorities by delineating the presence and future of emerging technologies including AI. Existing scholarship typically examines the representations of AI through framing studies based on content analysis, which is limited in capturing the discursive strategies and ideologies underlying news discourse. Although a growing body of studies affiliated with critical discourse analysis (CDA) has revealed how ideologies are discursively constructed in news discourse, attention to conceptual metaphors as discursive strategies is of very scarce concern.

Cognitive science and computer science share an analogous intellectual foundation with intertwined goals and perspectives articulated through the conceptual metaphor of “human mind—machine” [5]. Currently, an increasing number of studies have investigated conceptual metaphors in AI-related discourse across diverse genres, ranging from enterprise reports [6] and digital posts [7] to magazine covers [8]. However, apart from certain exceptions [9], conceptual metaphors in AI-related news discourse have received limited scholarly attention.

Accordingly, drawing on the research paradigm of a corpus-based critical metaphor analysis (CMA) [10], this paper aims to compare conceptual metaphors in AI-related news reports across *China Daily* (CD) and *The New York Times* (NYT), which leads to the following three research questions:

RQ1: What are the main topics in AI news discourse across CD and NYT?

RQ2: How do CD and NYT employ conceptual metaphors, and what are the similarities and differences in the conceptual metaphors employed in CD and NYT?

RQ3: What are the factors influencing the conceptual metaphors across CD and

NYT?

The next section will review representations of AI in news media. Then, a brief introduction to conceptual metaphor and CMA is given, before outlining the data and methodology. A further section presents results and discussions, with the conclusion drawn at the end.

## 2. Representations of AI in News Media

News media can frame some aspects of a perceived reality in such a way as to promote “(1) problem definition, (2) causal interpretation, (3) moral evaluation, and (4) treatment recommendation” [11] of the issue described. Existing scholarship has typically examined the representations of AI through framing studies, focusing on the identification of themes and emotions distributed in AI-related news reports across different domains, historical periods, and cultural contexts. For instance, Ouchchy *et al.* (2020) [12] found that those news reports on AI ethics were predominantly featured by neutral emotions, with a focus on everyday concerns while paying limited attention to broader ethical frameworks and governance mechanisms. Frost & Carter (2020) [13] and Samuel *et al.* (2021) [14] shifted their focus to the healthcare domain, concluding that English-language news media generally frame AI positively by highlighting its socio-economic implications in clinical practice, hospital management, digital health, and pharmaceutical development. From a geographical perspective, U.S. news media outlets have received the most sustained scholarly attention. Diachronic analyses of AI-related news reports in U.S. media prior to 2018 reveal a thematic shift from technology and entertainment towards business, economic, and broader social impact frames, accompanied by a transition from positive or mixed emotions to increasingly negative emotions [15] [16]. The co-selection perspective of themes and emotions in the aforementioned studies has also been applied to the analyses of AI-related news reports across other diverse national contexts such as Russia [17], Germany [18], and Portugal [19], etc. However, cross-national comparative perspectives are of scarce concern. Also, it can be concluded that these framing studies on the representations of AI have primarily relied on content analysis, a method that exhibits limitations in accounting for discursive strategies and ideologies underlying news media discourse.

Extending the framing studies mentioned above, a series of scholarly studies endeavor to incorporate CDA to further investigate the representations of AI. Hansen (2022) [20] conducted a CDA of Danish news coverage on “AI and human relations” under the guidance of Fairclough’s three-dimensional framework, concluding that Danish media failed to clearly distinguish between human-replacing AI (AI) and human-centered intelligence amplification (IA). Moreover, AI was more frequently described in neutral or negative evaluations, whereas IA was more likely to be framed with neutral or positive evaluations. Integrating machine-learning techniques and Discourse Historical Approach

(DHA), Qiu *et al.* (2026) [21] conducted a comparative study of AI-related news reports in Chinese and German news media. Their findings suggested that Chinese media foregrounded a perspectivization strategy by quoting political actors and maintained a positive stance towards AI, whereas German media articulated a more critical stance through the voices of high-tech figures. The studies reviewed above demonstrate the considerations of power and ideology of CDA, which provides scholarly insights for the present study. Nevertheless, the metaphorical discursive representations of AI still remain insufficiently explored.

The abstract essence of AI contributes to the applications of conceptual metaphors in a very small number of AI-related news discourse studies. For instance, Nguyen (2024) [9] found that conceptual metaphors in *The Guardian* discursively represented AI as a human being, an animal, a natural force, and a nuclear bomb; while they represented AI development as a race, a war, a conversation, a game and a dance. Despite Nguyen's (2024) [9] efforts, the metaphor-based studies of AI representations in news discourse are relatively limited compared with those studies of conceptual metaphors across other AI-related discourse genres [6]-[8]. Accordingly, given existing research gaps and scholarly insights mentioned above, this study will explore the representations of AI by comparing conceptual metaphors in AI-related news reports across CD and NYT.

### 3. Conceptual Metaphor and Critical Metaphor Analysis

Conceptual Metaphor Theory (CMT), pioneered by Lakoff and Johnson (1980) [22], revolutionizes the understanding of metaphors from rhetorical devices to cognitive tools. It posits that metaphors influence human understanding by enabling abstract or complex concepts in the target domain to be interpreted through more familiar and concrete experiences in the source domain. These conceptual correspondences, termed as mappings, link the source domain to the target domain obeying the Invariance Principle [23]. More specifically, such cross-domain mappings are not real-time arbitrary transference; rather, they preserve the inherent structural relations that are compatible between the source and target domains. In this process, the target domain inherits some image-schematic structures from the source domain and exerts a dominant role at all times.

The investigations of AI news reports in this study will be investigated in the framework of CMA proposed by Charles-Black (2004) [10], which combines CMT, CDA, and pragmatics to unravel the power and ideology behind metaphors. The original CMA follows the analytical procedures of identification, interpretation, and explanation of the cross-domain mappings of metaphors. Identification proceeds in two stages, from the initial extraction of candidate metaphors to the further examination of contexts. Interpretation links metaphors to the cognitive and pragmatic factors, while also assessing the extent to which metaphorical choices actively construct social realities. Explanation delves into the ideological

and rhetorical motivations of metaphors in discourse. Three steps of CMA above reflect the linguistic, cognitive and pragmatic natures of metaphor [10]. Extended CMA [24] further encapsulates the contextual analysis as the first step. Meanwhile, a corpus-based CDA integrating quantitative and qualitative discourse studies enhances the objectivity of CMA, which will be considered in this study as well.

#### 4. Data and Methodology

The present study builds two specialized corpora surrounding AI-related issues. To investigate the conceptual metaphors in the news coverage on AI in Chinese and U.S. news media, reports with “artificial intelligence or AI” in the “headline and lead section” from 30 November 2022 to 30 November 2025, each piece more than 268 tokens, are collected from CD and NYT with the assistance of Factiva. The selection of CD and NYT is based on their prominent roles in articulating national stances and safeguarding national interests in the international communication arena [25], as well as their long-established history and mainstream status in China and the U.S. Taking the official release of ChatGPT (30 November 2022) as the critical milestone in AI development, this study defines a three-year observation period to ensure the continuity of the timeframe. Further data downsampling follows constructed week sampling methods [26], accounting for the cyclical temporal variations of news content, in which an optimal number of six constructed weeks is initially designed for both corpora. Closer examinations reveal that no AI-related news items on Sunday are distributed in the collected data of CD, in view of which, an additional constructed week is supplemented to CD for the balance of data sampling. Meanwhile, given that the average length of per article in CD is lower than that in NYT (599 vs 1,065), this study purposefully extracts the weekdays with relatively high news output in CD to achieve the comparability between these two corpora at the token level. Finally, two specialized corpora have been built totaling 43,161 tokens in CD and 45,809 tokens in NYT respectively. More detailed compositions of the news reports on AI in CD and NYT are presented in Table 1 below.

**Table 1.** Data compositions of the news reports on AI in CD and NYT.

| Variable    | CD     | NYT    |
|-------------|--------|--------|
| Reports No. | 71     | 43     |
| Tokens      | 43,161 | 45,809 |
| Types       | 5,488  | 6,184  |

Once the specialized corpora are established, tokenization, lemmatization, and stop word removal are performed as preprocessing procedures. Then, a corpus-based CMA will be conducted before a topical overview of corpus findings in this study. To be more specific, we first examine the keywords and their hierarchical

clusters in CD and NYT assisted by Wmatrix 7 and KH Coder 3 for sketching the overall contexts of these two corpora. Subsequently, the paragraphs containing keywords in these two self-built corpora are further extracted to identify metaphor-related words (MRW), the identifications of which follow the principle that “a word is metaphorical when it is employed in an indirect manner and its meaning can be explained through a cross-domain mapping derived from its more basic sense” [27] introduced in Metaphorical Identification Procedure Vrije Universiteit (MIPVU). Such words to be identified include “MRW indirect, MRW direct, and MRW implicit” [27]. The annotations of metaphor types reside in their corresponding source domains coded through a dual method combining a top-down approach and a bottom-up approach. On the one hand, 13 common metaphor source domains rooted in the embodied experiential traditions [28] are taken as the initial top-down coding scheme. On the other hand, a bottom-up open coding strategy is employed to address the limitations imposed by the reliance on a priori basis. Taken together, the conceptual metaphors are fully identified and annotated in CD and NYT. Next, the identified conceptual metaphors are further interpreted through case studies, as well as explained through the examination of wider contexts in China and the U.S. Following these procedures, a comparative corpus-based CMA of the reports on AI across CD and NYT will be meticulously conducted in section 5.

## 5. Results and Discussions

### 5.1. Overall Corpus Contexts across *China Daily* and *The New York Times*

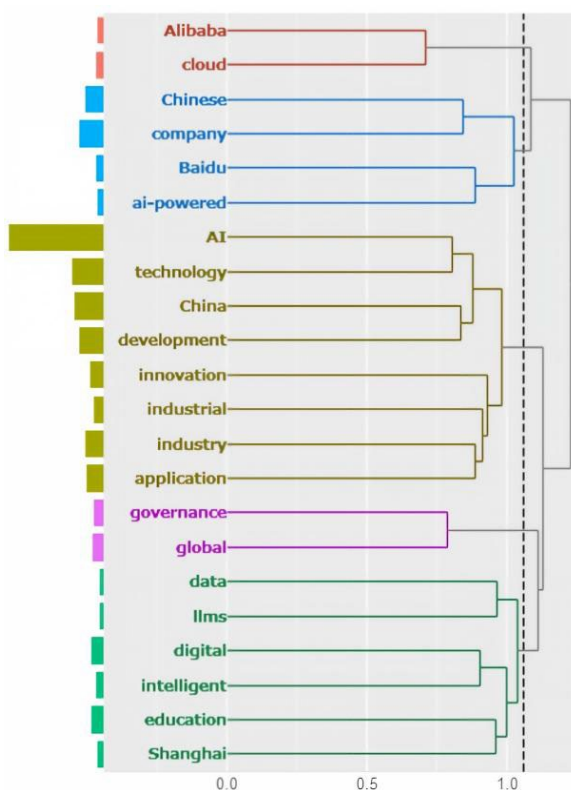
Keywords are those words that frequently occur in the target corpus assessed by keyness values. A higher keyness value represents a more significant distribution of its corresponding keyword. **Table 2** demonstrates the top 25 keywords in the news reports on AI in CD and NYT. These keywords are calculated by Wmatrix 7 and ranked according to their keyness values (*i.e.* log-likelihood values) with BNC 1994 Sampler Written as the reference corpus.

**Table 2.** Top 25 Keywords in the news report on AI in CD and NYT.

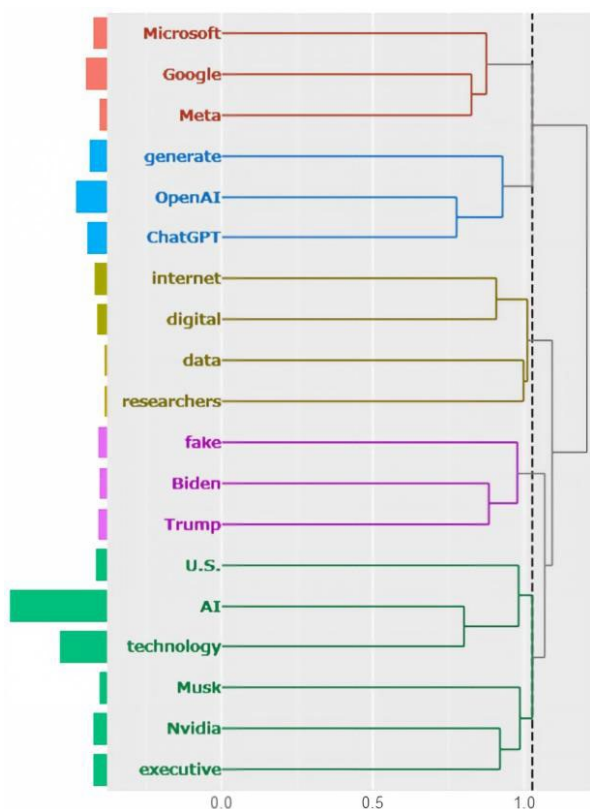
| Rank | CD          |         | NYT        |         |
|------|-------------|---------|------------|---------|
|      | Keyword     | Keyness | Keyword    | Keyness |
| 1    | AI          | 7680.71 | AI         | 4375.53 |
| 2    | China       | 1306.98 | technology | 1100.38 |
| 3    | technology  | 941.61  | OpenAI     | 1023.2  |
| 4    | data        | 802.46  | Google     | 722.26  |
| 5    | models      | 778.06  | companies  | 650.23  |
| 6    | development | 630.90  | ChatGPT    | 621.94  |
| 7    | Chinese     | 620.33  | data       | 502.35  |

## Continued

|    |              |        |             |        |
|----|--------------|--------|-------------|--------|
| 8  | digital      | 599.57 | chatbots    | 401.25 |
| 9  | innovation   | 561.86 | Microsoft   | 397.72 |
| 10 | governance   | 472.06 | chips       | 383.69 |
| 11 | global       | 439.92 | internet    | 374.5  |
| 12 | industry     | 340.68 | Nvidia      | 361.13 |
| 13 | education    | 339.13 | U.S.        | 359.89 |
| 14 | application  | 320.10 | researchers | 352.29 |
| 15 | Baidu        | 320.07 | tools       | 315.46 |
| 16 | Alibaba      | 292.83 | images      | 282.65 |
| 17 | capabilities | 277.77 | digital     | 259.25 |
| 18 | research     | 256.11 | generate    | 253.29 |
| 19 | intelligent  | 248.26 | Meta        | 220.69 |
| 20 | industrial   | 240.94 | Biden       | 220.69 |
| 21 | cloud        | 240.94 | Trump       | 213.29 |
| 22 | AI-powered   | 238.35 | fake        | 212.07 |
| 23 | company      | 237.82 | new         | 203.44 |
| 24 | Shanghai     | 237.52 | executive   | 202.01 |
| 25 | llms         | 231.54 | Musk        | 200.63 |



**Figure 1.** The hierarchical cluster of top 25 keywords in CD.



**Figure 2.** The Hierarchical cluster of Top 25 keywords in NYT.

Five clusters in CD shown in **Figure 1** are centered around technological innovations, industrial applications, and global governance of AI, as well as digital transformations driven by AI. Cluster 1 includes “Alibaba” and “cloud”. Alibaba Cloud is a representative cloud computing platform affiliated with Alibaba Group, offering a broad range of services such as big data analytics and database management to serve the development of AI infrastructures in China. Cluster 2 includes “Chinese”, “Baidu” and “AI-powered”, focusing on the practices of Chinese localized enterprises in AI innovations and applications. Baidu, as a major Chinese internet and AI company, endeavors to integrate AI technologies into products and services, thus facilitating the implementation of AI-powered strategies. Cluster 3 includes “AI”, “technology”, “China”, “development”, “innovation”, “industrial”, “industry” and “application”. This cluster is the one that is most directly associated with AI development, indicating CD’s considerable emphasis on the innovations and applications of AI across various sectors. Cluster 4 includes “global” and “governance”, encompassing topics such as international cooperation and the establishment of a global governance system for AI. CD situates AI within an international context, underscoring the shared responsibilities undertaken by different countries in building responsible AI. Cluster 5 includes “data”, “llms”, “digital”, “intelligent”, “education” and “Shanghai”, representing the digital transformation driven by AI. Among these keywords in Cluster 5, “education” especially stands out and is represented along two dimensions specifically includ-

ing the cultivation of AI talents and the capacities of AI to empower educational practices.

Five clusters in NYT shown in **Figure 2** present multifaceted topics encompassing technological actors, GenAI applications, digital infrastructures, political communication, and technological competitions. Cluster 1 includes “Microsoft”, “Google”, and “Meta”, indicating NYT’s strong focus on corporate actors in AI-related news coverage. Cluster 2 includes “generate”, “OpenAI”, and “ChatGPT”, referring to the breakthroughs of new-generation AI technologies exemplified by ChatGPT. ChatGPT released by OpenAI serves as a milestone in GenAI development, exerting profound impacts on industrial ecosystems and social interactions. Cluster 3 includes “Internet”, “digital”, “data”, and “researchers”, highlighting digital environments, data resources, and research communities that enable AI innovations. Cluster 4 includes “fake”, “Biden”, and “Trump”, presenting the intersections between AI and political communication. NYT emphasizes that AI-generated content may intensify uncertainties within political communication in that the misinformation and disinformation brought by AI may manipulate public judgment and pose challenges to the reliability of electoral information during presidential campaigns. Cluster 5 includes “U.S.”, “AI”, “technology”, “Musk”, “Nvidia”, and “executive”. This cluster mainly denotes the prominent entrepreneurs, technological companies, and corporate decision-makers in the landscape of AI industry, thereby suggesting the pivotal role of AI in shaping future technological competitions.

## 5.2. The Identification of Conceptual Metaphors across *China Daily* and *The New York Times*

The paragraphs positioned by the top 25 keywords in CD and NYT are further extracted to facilitate the identification of conceptual metaphors. These extracted paragraphs specifically comprise 39,436 tokens in CD (91.37% of the total), and 40,653 tokens in NYT (88.74% of the total). Next, following the identification procedures introduced in section 4, the distributions of conceptual metaphors identified across CD and NYT are shown in **Table 3** below.

**Table 3.** Distributions of conceptual metaphors identified across CD and NYT.

| Metaphor Types             | CD    |          | NYT   |          | CD vs. NYT |         |
|----------------------------|-------|----------|-------|----------|------------|---------|
|                            | Freq. | Pro. (%) | Freq. | Pro. (%) | $\chi^2$   | p-value |
| THE HUMAN BODY             | 8     | 0.92     | 10    | 1.14     | 0.05       | 0.83    |
| HEALTH AND ILLNESS         | 58    | 6.67     | 46    | 5.26     | 1.15       | 0.28    |
| ANIMALS                    | 2     | 0.23     | 11    | 1.26     | 4.83       | 0.03*   |
| PLANTS                     | 41    | 4.71     | 20    | 2.29     | 7.80       | 0.005** |
| BUILDINGS AND CONSTRUCTION | 184   | 21.15    | 147   | 16.80    | 6.43       | 0.01*   |
| MACHINES AND TOOLS         | 86    | 9.89     | 68    | 7.77     | 1.80       | 0.18    |
| GAMES AND SPORT            | 25    | 2.87     | 53    | 6.06     | 8.77       | 0.003** |

## Continued

|                        |     |        |     |        |       |          |
|------------------------|-----|--------|-----|--------|-------|----------|
| BUSINESS               | 43  | 4.94   | 44  | 5.03   | 0.00  | 1.00     |
| COOKING AND FOOD       | 5   | 0.57   | 11  | 1.26   | 1.51  | 0.21     |
| HEAT AND COLD          | 7   | 0.80   | 6   | 0.69   | 0.00  | 0.99     |
| LIGHT AND DARKNESS     | 4   | 0.46   | 8   | 0.91   | 0.72  | 0.39     |
| FORCES                 | 139 | 15.98  | 87  | 9.94   | 10.40 | 0.001*** |
| MOVEMENT AND DIRECTION | 4   | 0.46   | 6   | 0.69   | 0.09  | 0.76     |
| WAR                    | 60  | 6.90   | 98  | 11.20  | 7.72  | 0.005**  |
| PERFORMANCE            | 26  | 2.99   | 11  | 1.26   | 5.25  | 0.02*    |
| TRAVEL                 | 112 | 12.87  | 173 | 19.77  | 10.52 | 0.001*** |
| NATURE                 | 66  | 7.59   | 76  | 8.69   | 0.47  | 0.49     |
| Totals                 | 870 | 100.00 | 875 | 100.00 | 0.24  | 0.63     |

Note: a. \* means  $p \leq 0.05$ ; \*\* means  $p \leq 0.01$ ; \*\*\* means  $p \leq 0.001$ .

**Table 3** indicates that both CD and NYT employ a wide range of conceptual metaphors, whose overall distributions do not exhibit significant differences ( $\chi^2 = 0.24$ ,  $p = 0.63 > 0.05$ ) on the whole. 870 metaphorical representations are identified in CD, with the metaphor type of BUILDINGS AND CONSTRUCTION being the most frequent (Freq. = 184, Pro. = 21.15%), followed by FORCES (Freq. = 139, Pro. = 15.98%) and TRAVEL (Freq. = 112, Pro. = 12.87%). This distribution suggests that CD prefers to construe AI as an entity and process that can be built, propelled, and progressively developed. By contrast, NYT records 875 metaphorical representations, with the metaphor type of TRAVEL ranking first (Freq. = 173, Pro. = 19.77%), followed by BUILDINGS AND CONSTRUCTION (Freq. = 147; Pro. = 16.80%) and WAR (Freq. = 98; Pro. = 11.20%). It can be seen that in addition to development narratives, NYT puts a stronger emphasis on the potential competitions and conflicts derived from AI-related issues than CD. Chi-square tests further unravel significant cross-media differences in several metaphor types. To be more specific, CD employs PLANTS ( $\chi^2 = 7.80$ ,  $p = 0.005 < 0.01$ ), BUILDINGS AND CONSTRUCTION ( $\chi^2 = 6.43$ ,  $p = 0.01$ ), FORCES ( $\chi^2 = 14.40$ ,  $p = 0.001$ ), and PERFORMANCE ( $\chi^2 = 5.25$ ,  $p = 0.02 < 0.05$ ) metaphors significantly more frequently than their counterparts in NYT. NYT significantly favors ANIMALS ( $\chi^2 = 4.83$ ,  $p = 0.03 < 0.05$ ), GAMES AND SPORT ( $\chi^2 = 8.77$ ,  $p = 0.003 < 0.01$ ), WAR ( $\chi^2 = 7.72$ ,  $p = 0.005 < 0.01$ ), and TRAVEL ( $\chi^2 = 10.52$ ,  $p = 0.001$ ) metaphors.

### 5.3. The Interpretation of Conceptual Metaphors across *China Daily* and *The New York Times*

Obviously, the similarities and differences can be found in the distributions of conceptual metaphors identified in CD and NYT. Given the limited space, this sub-section mainly narrows down the focus to the top three types of conceptual metaphors respectively in CD and NYT. Besides, the other four types of concep-

tual metaphors with significant differences between CD and NYT are considered as well.

### 5.3.1. Representative Conceptual Metaphors in News Reports on AI by *China Daily*

The three most frequently distributed metaphor types in CD are BUILDINGS AND CONSTRUCTION, FORCES, and TRAVEL, collectively conceptualizing AI development as a continuous process of construction, empowerment, and forward advancement.

#### (1) BUILDINGS AND CONSTRUCTION Metaphor

BUILDINGS AND CONSTRUCTION metaphor in CD is closely connected to AI development. A series of structural features represented by tokens such as “build\*”, “establish\*”, and “construct\*” demonstrates that AI IS A BUILDING or AI IS A FOUNDATION. On the one hand, AI can be deemed as a sociotechnical system that requires multi-stakeholder participation and continuous investment. Relevant reports in CD call for building a favorable technological environment, an innovative AI talent ecosystem, and an inclusive AI global governance system, etc. In Example (1), AI IS A BUILDING, the governance of which is supported by the collective efforts of government, companies and societies. On the other hand, AI development underpins the attainment of broader technological goals such as “building a Digital China”. Discursive representations exemplified by Example (2) imply AI IS A FOUNDATION, thus reinforcing the strategic significance of AI in the national narratives at the macro level.

Example (1): It is good that the discussions focused on actions to synergize the efforts of governments, companies and societies to *build* an inclusive AI global governance system to ensure that the technology serves the common good of humanity.

(CD, February 11, 2025)

Example (2): According to an action plan released by the National Data Administration in May, China aims to make great strides in *building* a Digital China by the end of 2025, with the continuous expansion of new quality productive forces and improvements in the quality and efficiency of economic development.

(CD, July 26, 2025)

#### (2) FORCES Metaphor

FORCES metaphor in CD is typically represented by “enhance\*”, “boost\*”, “breakthrough”, “push” and “disruptive”, etc., putting AI into a dynamic network featured by the incessant interplay of forces. Further to this, two main types of FORCES metaphors have been identified in CD, specifically including AI IS AN EXERTING FORCE and AI IS A RECEIVING ENTITY. AI itself as a disruptive power exerts both positive and negative influences on the whole society. A vast majority of relevant concordances in CD emphasize the benefits brought by AI particularly by means of its industry-specific applications. For instance, five dy-

namic force-related tokens underlined in Example (3) together conceptualize AI as a force propelling industrial transformation and high-quality economic development.

Example (3): Policies encourage leveraging AI to empower industrial production and accelerating the upgrading of high-end equipment, which help to advance the high-quality development of the industrial internet and smart manufacturing, enhance the core competitiveness of the manufacturing sector and drive the modernization of industrial and supply chains, Zheng said.  
(CD, August 30, 2025)

Concordances indicating that AI IS A RECEIVING ENTITY primarily highlight how external forces facilitate AI development. For example, universities are supportive forces that strengthen AI talent cultivation; international cooperation enhances the precision of AI regulation and AI governance; and national initiatives advance the development of AI governance system.

### (3) TRAVEL Metaphor

TRAVEL metaphor in CD emphasizes AI development as a continuous process with a clearly defined direction, a discernible journey, and an accelerating pace, thus surrounded by a direction scenario, a path scenario, and a pace scenario. The direction scenario mainly focuses on technological innovation and ethical governance of AI. In terms of technological innovation, multimodal GenAI is positioned as the direction of GenAI development to pursue artificial general intelligence (Example 4). In terms of ethical governance, CD puts more emphasis on directions aligning with international cooperation (Example 5).

Example (4): Multimodal large language models have made substantial advances over the past year, and the practical application of such models is heading in the direction of pursuing artificial general intelligence, with diverse vertical industrial large models and AI agents emerging, said experts at the 2024 World AI Conference, which wrapped up on July 6 in Shanghai.  
(CD, July 17, 2024)

Example (5): The themes of the Paris summit, including public interest AI, the future of work, innovation and culture, trust in AI and global AI governance, highlight some of the contentious issues related to the technology, as well as the directions in which collective efforts are called for to address the challenges.  
(CD, February 11, 2025)

The path scenario of TRAVEL metaphor in CD is typically represented by “path\*” and “journey”. Relevant concordances depict the transitions of AI from isolated breakthroughs to a mature AI ecosystem, the endeavors made by China to boost AI governance, and the innovations led by technological companies, etc. However, of paramount emphasis is still the integration of AI with specific industries, which resonates with “AI Plus” strategies advocated in China. Taking the education field as an example, Example (6) spatializes the abstract process of ed-

educational innovation by conceptualizing the applications of AI as “new paths” to facilitate enhanced learning outcomes. The pace scenario of TRAVEL metaphor in CD is represented by “stride\*” and “pace\*”, etc., which is employed to highlight the rapid advancement of AI and its expanding societal impacts. For instance, Chinese data sector is reported to have made “great strides” in Example (7), making a solid foundation for data-related AI development.

Example (6): Liu Jun, rector of the City University of Macao, said the application of AI in English education has opened up new *paths* for personalized learning, innovative teaching methods and language proficiency enhancement.

(CD, July 27, 2024)

Example (7): China’s data sector has made great *strides* during the 14th Five-Year Plan (2021-25) period.

(CD, August 30, 2025)

### 5.3.2. Representative Conceptual Metaphors in News Reports on AI by *The New York Times*

Three most frequently distributed metaphor types in NYT are TRAVEL, BUILDINGS AND CONSTRUCTION, and WAR, indicating that AI development is a process of progress, construction, and competition.

#### (1) TRAVEL Metaphor

TRAVEL metaphor with the most frequent distribution in NYT can be perceived by “advance\*”, “goal\*” and “reach\*” etc. These representations primarily evoke scenarios of forward movement and destination. Interestingly, most of the concordances representing seemingly positive forward movement scenarios possess a negative tone in NYT, criticizing that the advancement of AI may place society beyond human control and disrupt the political sphere through the widespread democratization of disinformation, etc. Particular negative attention has also been paid to the advancement of AI in China. For instance, Example (8) considers the innovative development of DeepSeek as a tool through which China advances its geopolitical goals.

Example (8): DeepSeek’s development could also *advance* China’s geopolitical *goals*.

(NYT, February 2, 2025)

“goals” in Example (8) also represents the destination scenario of TRAVEL metaphor in NYT, aiming to constrain AI development in China. It can be seen that NYT endeavors to politicize technological issues when China is involved. Certainly, non-political goals are also described in NYT as well, which primarily focus on technological goals, commercial goals and health-related goals. These goals specifically include developing machines that can match the capabilities of the human brain and reducing the costs of AI training, etc. Some examples are shown as follows:

Example (9): But he said he believed that entirely new ideas were needed to

reach the goal that Google and many others were chasing: a machine that can match the power of the human brain.

(NYT, December 19, 2024)

Example (10): “Everyone has been pursuing this goal because the costs of training AI was too high”.

(NYT, January 27, 2025)

## (2) BUILDINGS AND CONSTRUCTION Metaphor

BUILDINGS AND CONSTRUCTION metaphor in NYT is manifested by words such as “build\*”, “blueprint”, and “underpin\*”. Most of its relevant concordances emphasize the endeavors and investments made by technological companies such as Microsoft and OpenAI. Meanwhile, a very small number of concordances also highlight some regulatory actions concerning AI. For instance, in Example (11), the operational space of AI is construed as a constructed space that requires regulations through deliberate impositions of constraints.

Example (11): “Silicon Valley is investing billions to build these liberal guardrails to neuter the AI into forcing their worldview in the face of users and present it as ‘reality’ or ‘fact,’” Andrew Torba, the founder of Gab, said in a written response to questions.

(NYT, March 22, 2023)

## (3) WAR Metaphor

WAR metaphor in NYT can be found in two major scenarios including (1) the pre-war scenario illustrated by “risk\*” and “threat\*”, etc. and (2) the attack scenario evidenced by “fight\*” and “strike\*”, etc. The pre-war scenario focuses on the dangers of AI and government policies. Reports in NYT emphasize the dangers of AI in terms of its generation of online disinformation, as well as its threats to humanity, economic profits, and national security. Moreover, dangers of government policies mainly come from the U.S. government’s increased tariffs and its restrictions on AI chip exports, which threaten economic development. For instance, as to Example (12), AI DEVELOPMENT IS A WAR, in which the international expansion of Nvidia is construed as a target under the attack from the Biden administration’s restrictions on AI chips exports to China.

Example (12): The restrictions would threaten an international expansion plan that Nvidia’s chief executive, Jensen Huang, calls “sovereign AI”.

(NYT, December 29, 2024)

The attack scenario of WAR metaphor in NYT is typically realized by confrontational meanings such as “fight against” and “fight over”. Concordances conveying “fight against” position AI as a weapon of resistance against such risks as climate change, global warming and disease, etc. By contrast, concordances conveying “fight over” more emphasize the struggles over AI development, policy-making, and authorities among multiple stakeholders, as evidenced by the disagreements over dual visions for AI and controversies surrounding AI legislation. Par-

ticular attention in NYT has been paid to the metaphor that “AI LEGISLATION IS A WAR”. Since the Biden administration introduced new AI regulations, tensions have been intensified between the government and technological companies, as well as among administration officials affiliated with the Democratic and Republican parties.

### 5.3.3. Other Conceptual Metaphors with Significant Differences Distributed in News Reports on AI across *China Daily* and *The New York Times*

As shown in **Table 3**, as to the representative conceptual metaphors interpreted in the preceding two sub-sections, BUILDINGS AND CONSTRUCTION and FORCES metaphors occur significantly more frequently in CD than in NYT; whereas TRAVEL and WAR metaphors are significantly more prevalent in NYT. A closer examination of **Table 3** also reveals four other metaphor types beyond those discussed above. This subsection therefore examines these less prominent but significantly differentiated metaphor types to further elucidate different cognitive representations of AI across CD and NYT.

#### (1) Other Conceptual Metaphors Significantly Overused by *China Daily*

Compared to NYT, CD significantly employs PLANTS metaphor ( $\chi^2 = 7.80$ ,  $p = 0.005 < 0.01$ ) and PERFORMANCE metaphor ( $\chi^2 = 5.25$ ,  $p = 0.02 < 0.05$ ). PLANTS metaphor in CD can be evidenced by words such as “grow\*”, “cultivate\*”, “nurture\*”, and “soil”, etc. These lexical items evoking the imagery of plant growth conceptualize AI and its applications as organic entities featured by expansion and sustainable development, while positioning China as a fertile soil for AI innovation. Moreover, the sustained growth of AI-related demands and social acceptance has been emphasized as well. To be more specific, users’ demands for AI models, workers’ acceptance of AI, and public attention to AI are all construed as the phenomena that “grow” progressively, which together suggest the self-expansive, cumulative, and long-term growth potential of AI development (Example 13).

Example (13): This technology is expected to usher in speedy *growth* in China and inject fresh momentum into a new industrial revolution, as major Chinese tech heavyweights step up efforts to develop their own AI-powered LLMs, experts said.

(CD, August 10, 2023)

PERFORMANCE metaphor in CD is primarily realized by the construction of “play\* a(n)... role”, which conceptualizes AI development and its applications as forms of performance involving different participants, functional roles, and social implications. Relevant concordances mainly represent AI as playing a significant role across a series of fields such as healthcare (Example 14) and education (Example 15).

Example (14): Yan said that AI can also *play a positive role* in enhancing hospital management and alleviating the lack of doctors.

(CD, May 19, 2023)

Example (15): AI-powered tools *play an important role* in bridging urban-rural education gaps by expanding teaching resources and improving accessibility, Huang adds.

(CD, April 3, 2025)

## (2) Other Conceptual Metaphors Significantly Overused by *The New York Times*

Compared to CD, NYT significantly employs ANIMALS metaphor ( $x^2 = 4.83$ ,  $p = 0.03 < 0.05$ ) and GAMES AND SPORT metaphor ( $x^2 = 8.77$ ,  $p = 0.003 < 0.01$ ). ANIMALS metaphor in NYT is represented by words such as “breed”, “dinosaur”, and “bull\*”. In Example (16), the new generation of AI is represented as a new “breed” originally referring to a category of animals. This metaphorical expression naturalizes AI development as a process akin to biological evolution and reinforces a positive representation of AI as increasingly advanced and mature.

Example (16): Investors, pundits and journalists have talked up AI for years, but the new wave—the result of more than a decade of research—represents a more powerful and more mature *breed* of AI.

(NYT, January 7, 2023)

GAMES AND SPORT metaphor in NYT can be perceived by “race\*”, “win\*”, “game\*”, and “compete\*”, etc. Relevant concordances mainly emphasize those rivalries among AI products and technological companies (Example 17), as well as international competitions (Example 18) in AI development.

Example (17): Seeing the raw power of this phenomenon, companies like OpenAI, Google and Meta *raced* to get their hands on as much internet data as possible, cutting corners, ignoring corporate policies and even debating whether they should skirt the law, according to an examination this year by The Times.

(NYT, December 19, 2024)

Example (18): The moves dovetail with the Trump administration’s efforts to bolster the United States in an AI *race* against China, in part by cutting red tape.

(NYT, November 26, 2025)

## 5.4. The Explanation of Conceptual Metaphors across *China Daily* and *The New York Times*

The dialectical relationship between discourse and society suggests that the differences of conceptual metaphors employed in CD and NYT indicated above are largely influenced by social factors including media systems, national interests, and dominant ideologies.

Firstly, as to media systems, CD and NYT serve as the representatives of two different media systems in China and the U.S. CD is a Chinese official English-language outlet operating within a media system closely aligned with government policies. News reports in CD prioritize the construction of a national image by

presenting the technological development and achievements in China. Therefore, relevant conceptual metaphors in CD tend to frame AI as a positive entity driving social progress and highlight the collective efforts made to enhance AI development across various sectors particularly at the national level. NYT situates itself within a liberal media system featured by market-oriented journalistic practices, in which news production involves balancing audience expectations with commercial considerations. Meanwhile, the liberal parties' concerns about fairness, privacy, and humanistic values contribute to more emphases on the social risks and ethical dilemmas brought by AI in its corresponding metaphorical conceptualizations.

Secondly, as to national interests, CD serves to drive the development of new quality productive forces in China and construct China's image as a responsible technological power by representing the implementation of national strategies. Such national strategies permeate the processes of industrial enhancement and international cooperation. In Chinese context, the "AI Plus" initiative proposed by China propels the integration of AI into various sectors to enhance productivity. Accordingly, PLANTS, FORCES, and PERFORMANCE metaphors are employed in CD to construct AI as a technological force characterized by growth potentials, empowering capabilities, and social implications. In global context, China has actively engaged in global AI governance to promote digital equity for developing countries and seek a bigger say on the global stage, which can be found in the BUILDINGS AND CONSTRUCTION metaphor that represents AI governance as a process requiring multi-stakeholder collaborations. NYT serves to sustain the technological leadership of the U.S. and stimulate the vitality of business markets by situating AI within the narratives of technological innovations, corporate competitions, and global technological rivalries. On the one hand, the U.S. maintains its competitive advantage in the global AI landscape through leading technological companies; thus, BUILDINGS AND CONSTRUCTION and TRAVEL metaphors are employed in NYT to portray AI development as a process driven by corporate investment and technological breakthroughs. On the other hand, AI is regarded as a catalyst to promote economic development and intensify corporate competitions. By employing ANIMALS and GAMES AND SPORT metaphors, NYT highlights the competitive relationships among market actors as they contend for technological resources and commercial interests. Furthermore, the WAR metaphor significantly overused in NYT places AI within technological competitions and geopolitical rivalries, indicating concerns of the U.S. with maintaining strategic advantages in the global AI race.

Thirdly, as to dominant ideologies, there exist a couple of distinctions between socialist collectivism and liberal individualism that influence the interpretations of conceptual metaphors across CD and NYT. More specifically, conceptual metaphors in CD are informed by socialist collectivism and a nationally coordinated development paradigm, thus emphasizing governmental guidance, multi-stakeholder collaborations, and the social implications of AI in promoting the shared

well-being of humanity. By contrast, NYT is influenced by neoliberal individualism. Therefore, its uses of conceptual metaphors place more emphasis on market-oriented economics, as well as corporate innovations and competitions within the limited intervention of the U.S. government.

## 6. Conclusions

The present study has conducted a comparative corpus-based CMA of AI-related news reports in CD and NYT, aiming to identify the similarities and differences of conceptual metaphors and further unravel their underlying ideologies represented in the self-built corpora.

A precedent overview of corpus context reveals that CD prioritizes macro-strategic topics including technological innovations, industrial applications, global governance of AI, as well as digital transformations driven by AI. In contrast, NYT exhibits a marked preference for the commercial and political topics centered on OpenAI, with particular emphasis on technological actors, GenAI applications, digital infrastructures, political communication and technological competitions.

CD and NYT resort to a broad range of conceptual metaphors to represent AI within paragraphs containing the top 25 keywords identified in both corpora. Both media outlets attach great importance to AI development, which can be evidenced by the shared representative status of the BUILDINGS AND CONSTRUCTION metaphor and the TRAVEL metaphor in CD and NYT. However, their semantic conceptualizations still diverge. CD conceptualizes AI development as a planned and institutionally supported construction, as well as a controllable travel, whereas NYT conceptualizes it as a market-driven construction and a risky travel. Besides, as to the other two representative conceptual metaphors in CD and NYT, CD prominently employs the FORCES metaphor to conceptualize AI as an empowering force that can be mobilized by government, enterprises, and social institutions; whereas NYT prominently employs the WAR metaphor to situate AI within a contested arena in which technological companies, partisan groups, and national actors compete for technological advantages and strategic interests. Moreover, as to other conceptual metaphors with significant differences distributed in these two media outlets, PLANTS metaphor and PERFORMANCE metaphor are significantly overused in CD to represent AI development as an organic growing process with evolving potentials and AI as an active agent playing a positive role across various sectors. ANIMALS metaphor and GAMES AND SPORT metaphor are significantly overused in NYT to emphasize market dynamics and competitions among key social actors. Factors influencing the conceptual metaphors across CD and NYT encompass their distinct media systems, as well as the national interests and dominant ideologies in China and the U.S.

AI can be regarded as the central issue in the global technological competitions and social transformations. AI-related news discourse not only reflects technological development but also mirrors the value orientations of different countries in terms of technological governance and ideology. The investigations of conceptual

metaphors in CD and NYT elucidate how journalists frame abstract and complex AI-related issues in ways that are more accessible to the public, thus enlightening policymakers to develop effective communication strategies across diverse socio-political contexts. Moreover, this study offers more implications for STS. However, CD and NYT cannot represent national media discourse as a whole, which suggests that further studies should incorporate other media outlets to assess the applicability of the metaphorical patterns identified in this study. Besides, further studies could also extend AI-related discourse studies to social media platforms, adopt longitudinal perspectives to examine the evolution of AI representations within a specific national context, or conduct comparative studies across other countries within different contexts.

## Conflicts of Interest

The author declares no conflicts of interest.

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