

Recent advances in natural language processing (NLP) have enabled large-scale quantitative analysis of evaluative meaning in media discourse, providing new methodological tools for linguistic research (e.g., Liu 2012; Pang & Lee 2008). In particular, sentiment analysis has been increasingly adopted to examine how technological, political, and economic topics are framed across national media systems. This study applies an NLP-based, corpus-driven approach to investigate how international news media linguistically evaluate Chinese artificial intelligence (AI), and whether such evaluations align with countries' public opinion toward China and their involvement in the Belt and Road Initiative (BRI).

The dataset consists of news articles published between May 2023 and May 2024 from 12 countries representing diverse geopolitical relationships with China: the United States, Australia, Pakistan, Peru, Russia, Romania, Italy, Greece, Portugal, the Philippines, Brazil, and Egypt. Articles were collected using GNews, which aggregates content from more than 60,000 global news sources. For each country, two corpora were constructed: one containing articles related to China + AI, and a control corpus containing articles related to AI alone. Sentiment analysis was conducted using Microsoft Azure NLP tools, which assign probabilistic scores for positive, neutral, and negative evaluative language at the document level. Results indicate that AI-related media discourse across countries is predominantly negative, with approximately 60%–75% of articles classified as negative. Importantly, the inclusion of “China” as a co-occurring topic does not substantially shift overall sentiment distributions. Neither a country's public opinion toward China nor its formal participation in the BRI shows a significant relationship with media sentiment toward Chinese AI.

Correlation analyses reveal that while sentiment categories remain stable, evaluative intensity increases when China is introduced into AI-related discourse. For example, in Australia, the average neutral sentiment score rises from 0.25 in AI-only articles to 0.31 in China+AI articles, indicating reinforced neutrality rather than a polarity shift. Negative sentiment scores in AI and China+AI corpora are positively correlated ($r = 0.708$, $p < 0.05$), while neutral sentiment scores show a significant negative correlation ($r = -0.647$, $p < 0.05$). Within the China+AI corpus, negative and neutral sentiment are strongly negatively correlated ($r = -0.912$, $p < 0.01$), reflecting polarized evaluative positioning. Further analysis demonstrates a strong positive correlation between neutral sentiment in AI-only articles and neutral sentiment in China+AI articles ($r = 0.971$, $p < 0.01$). Neutral AI sentiment also exhibits significant negative correlations with both negative ($r = -0.890$, $p < 0.01$) and positive sentiment ($r = -0.649$, $p < 0.05$) in China+AI discourse. These patterns indicate that when AI discourse is framed neutrally, the inclusion of China tends to intensify neutrality rather than reorient evaluations toward praise or criticism.

In sum, this study demonstrates the applicability of computational methods to Chinese linguistics and discourse studies. The findings challenge expectations derived from Commercial Liberalism and highlight structural constraints on China's ability to generate positive soft power through AI-related media narratives.