

Summary of “Counting AI Research: Exploring AI Research Output in English- and Chinese-Language Sources”

Tracking research output can, among other things, inform assessments of any given country’s innovativeness or assist in evaluating the impact of certain funding initiatives. However, measuring research output is not as straightforward as it may seem. **There are different ways to define output and different data sources that can be relied on, which can affect the outcomes of assessments.**

When counting artificial intelligence publication output, it is critical to consider where the publications are published and the language in which a work is published. Using a detailed analysis, this data brief reveals that China’s lead in AI research output is greater than many English-language sources suggest if Chinese-language research publications are also taken into consideration. **By including a corpus of Chinese-language research publications, our analysis shows that China’s lead in AI research output quadruples.**

We compare trends in AI research output by analyzing the number and share of AI publications by contributing country, the location of organizations producing AI research, and the organizations funding AI research. China and the United States were the leaders in AI research output in 2020 by raw publication counts. **The inclusion of China National Knowledge Infrastructure (CNKI) when counting AI research dramatically increases China’s share of the world’s AI publications.** In particular, examining Chinese-language publications revealed regional AI research hubs beyond Beijing and Shanghai.

The National Natural Science Foundation of China (国家自然科学基金委员会) is the most frequently acknowledged funding source among AI publications in CSET’s merged corpus. **Based on CSET’s merged corpus, 22 percent of AI publications in 2020 with Chinese-affiliated authors were international collaborations, most frequently with coauthors from the United States, United Kingdom, Australia, and Canada.** Many AI publications in CNKI pertain to subjects in emerging application fields, such as navigation and remote sensing.

U.S. universities, including Harvard University, Stanford University, and the Massachusetts Institute of Technology are among leading AI research producers in 2020 even when we include CNKI in the merged corpus. Nevertheless, Chinese organizations such as **Tsinghua University, Shanghai Jiao Tong University, and the University of Chinese Academy of Sciences surface as top AI research producers.**

For more information:

- Download the report: <https://cset.georgetown.edu/publication/counting-ai-research/>
- Contact Daniel Chou (daniel.chou@georgetown.edu).