Was AlphaGo's Triumf Asia's "Sputnik Moment"?

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Methods

We used Google Trends data for the two volumes of searches "Artificial intelligence - Topic" and "Machine learning - Field of study". We downloaded data over the period from October 2012 to August 2019. The starting point is chosen because of a milestone in machine learning: the AlexNet breakthrough in visual object recognition that resulted in winning the ImageNet 2012 Challenge on September 30, 2012.

We excluded countries defined by GoogleTrends as a "low search volume countries", which did not have enough data for the search terms to receive at least the lowest score of 1. We also excluded China and Russia because Google is not the largest web search engine in those countries, and GoogleTrends data is thus not representative of these countries' populations. Because GoogleTrends provides only relative popularity, we excluded several influential and potentially misleading countries even though they were not classified as "low search volume countries". In particular, the Philippines and Bolivia were scored unexpectedly high for AI topic searches at the beginning of the period, which might be an artefact of late computerisation of these countries. We also exclude St. Helena due to its small population (about 5000) even though its proportion of search queries for "machine learning" sometimes exceeded that of South Korea.

We compared the popularity data among the remaining countries. Since GoogleTrends does not allow comparisons for more than five slots simultaneously, we subsequently retrieved the data in batches for four countries plus South Korea, which defines the reference 100 value as the country in which both key terms are the most popular.

Five countries in the data have a high interest in AlphaGo: South Korea, Japan, Taiwan, Hong Kong, and Singapore.

We used the volume of searches that GoogleTrends attributes to the topic "AI" and the field of study "Machine learning" rather than individual search terms. While grouped searches are easier to compare between different languages, GoogleTrends is not transparent about how the search terms are combined.