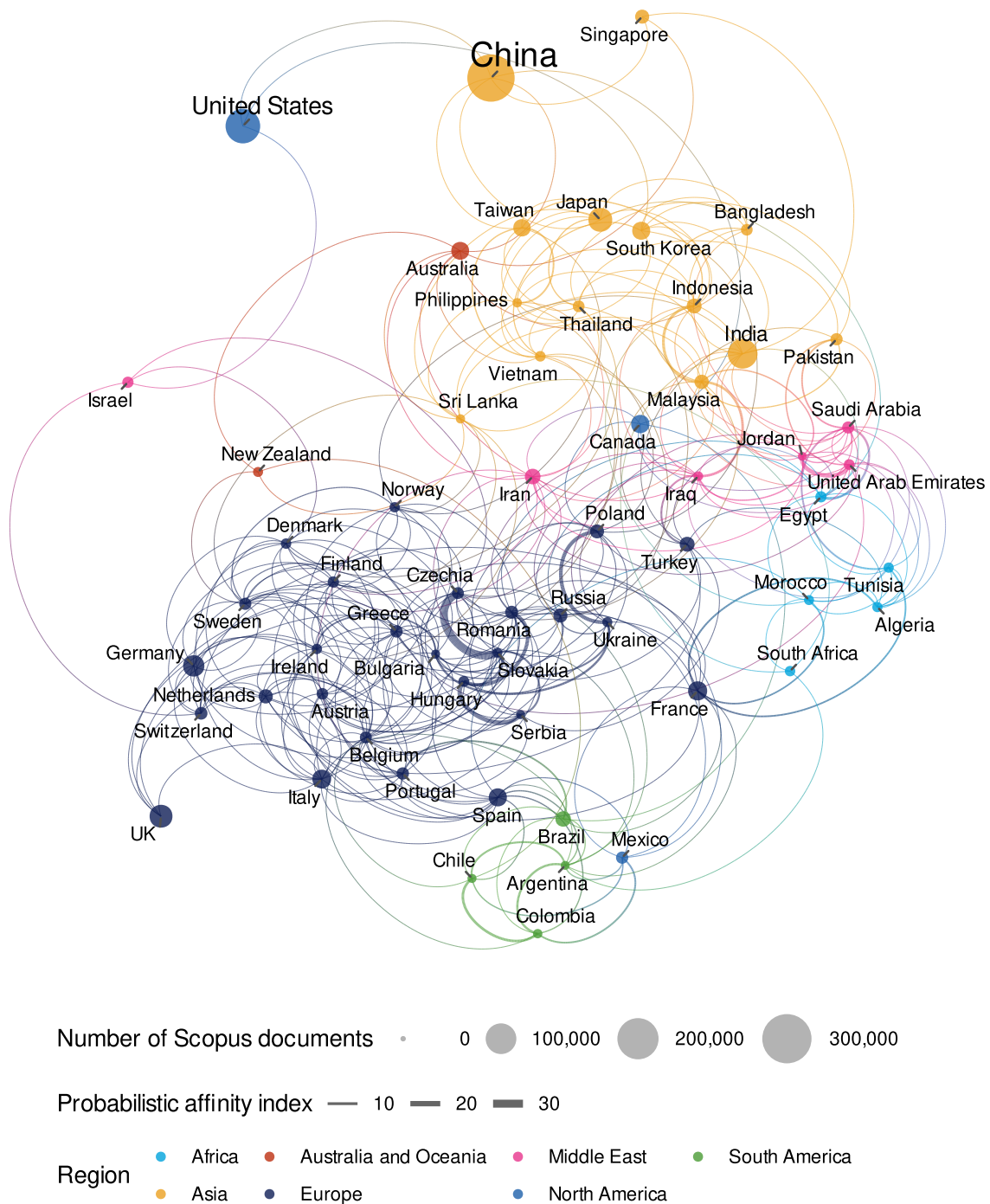


Figure PBS-C

AI index of collaboration, by region, country, or economy pairs: 2003–2022



AI = artificial intelligence.

**Note(s):**

The index of collaboration is calculated as follows:  $IC_{xy} = (C_{xy} / C_x) / (C_y / C_w)$ , where  $IC_{xy}$  = index of collaboration between country  $x$  and country  $y$ ,  $C_{xy}$  = number of publications coauthored between country  $x$  and country  $y$  in the relevant field,  $C_x$  = total number of international coauthorships by country  $x$  in the relevant field,  $C_y$  = total number of international coauthorships by country  $y$  in the relevant field, and  $C_w$  = total number of international coauthorships in the relevant field overall. This network diagram shows indices of collaboration between all pairs of regions, countries, or economies within the top 60 producers of AI-related research, based on whole counting, for pairs having an index of collaboration higher than 1.00. AI articles refer to publications from a selection of conference proceedings and peer-reviewed journals in S&E fields from Scopus that were classified as AI in the All Science Journal Classification. Articles are classified by their year of publication and are assigned to a region, country, or

economy on the basis of the institutional address(es) of the author(s) listed in the article. Links are only shown in a single direction, dictated by alphabetical order. The size of the nodes is proportional to the total number of AI-related articles written by each region, country, or economy. The width of the links between nodes is proportional to the index of collaboration between both regions, countries, or economies. Positioning of nodes is defined using the Fruchterman-Reingold algorithm. For the list of regions, countries, and economies and their respective geographic regions in this figure, see Table SPBS-91.

**Source(s):**

National Center for Science and Engineering Statistics; Science-Metrix; Elsevier, Scopus abstract and citation database, accessed April 2023.

*Science and Engineering Indicators*