

Supplementary Material 9: Citation analysis of data obtained directly from WoS, Scopus and MSA

As an alternative to obtaining citation links from OpenCitations' COCI data, we also retrieved citation counts and total number of publications (i.e., not restricted to DOIs) from WoS, Scopus and MSA directly¹.

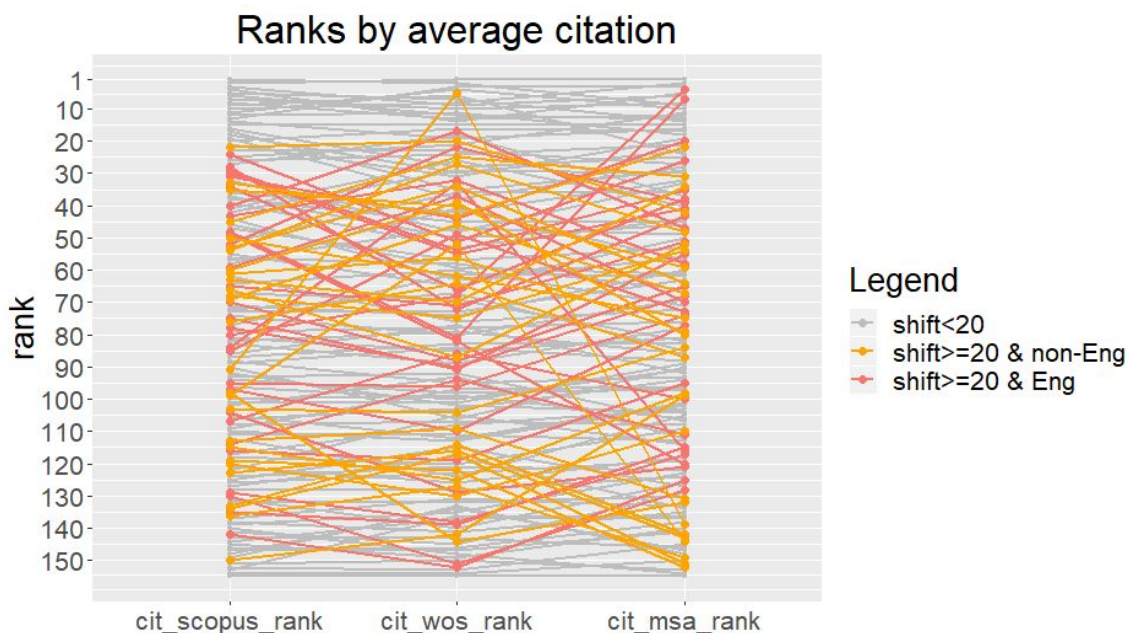


Figure S9.1: 2016 ranking by average citations for 155 universities, as per bibliographic source (with those shifting at least 20 positions displayed in colour)

Figure S9.1 presents the shifts in ranks of 155 universities by average citations, obtained as per data source. Those that have shifted by more than 20 positions at least once are highlighted in colour. This includes 56 universities, of which 27 of them are non-English speaking ones. This also includes 4 out of the 7 Latin American universities in our set.

The most extreme cases include: Universitat Siegen (dropped 134 places when moved from WoS to MSA), and University of Marrakech Cadi Ayyad (dropped 92 places moving in the same direction). These are followed by St Georges University London, Western Sydney University, University of KwaZulu-Natal, and Rush University. It is also observed many of the extreme cases coincide with those presented in the results of the main article (using OpenCitations' COCI data and focused only on DOIs).

¹ MSA data was collected (on 15 October 2019) from a Microsoft Academic Graph data dump collected by the Curtin Open Knowledge Initiative project; WoS data was collected via its inCites platform on 16 October 2019; Scopus data was collected via Scopus website searches (by affiliation and publication year) from 16 to 18 October 2019.

Figure S9.2 further summarises the result using box plots of changes to average citations (left) and the corresponding ranks (right). The results display similar patterns to the main article, albeit less extreme. In particular, the distributions of rank shifts (for all three pairs) depict peaked centres with long tails.

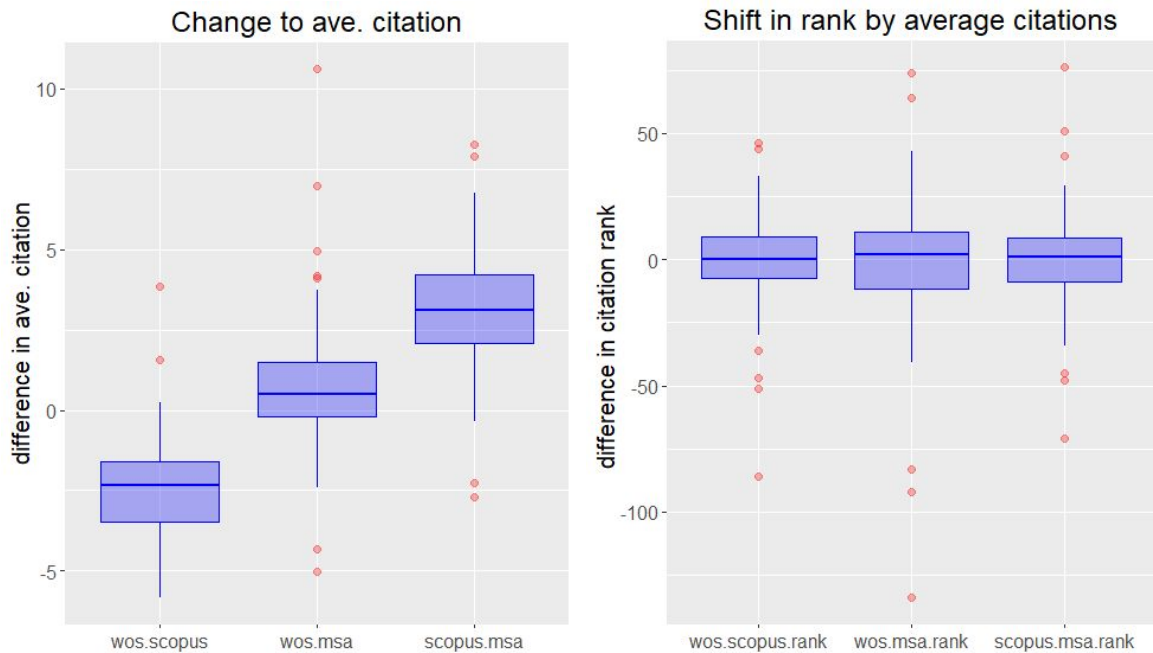


Figure S9.2: Changes to 2016 average citations (left) and rank by average citations (right) when moving from one source to another for 155 universities.