Clarivate™

Research Horizon Navigator

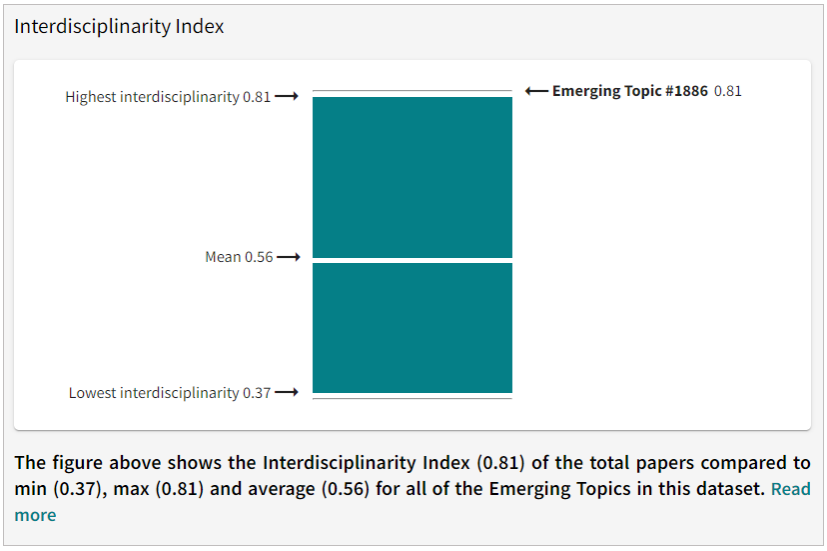
Interdisciplinarity Index

Uncover how topics form, grow, branch out and merge across domains.

The Interdisciplinarity Index measures how broadly an emerging research topic integrates ideas from different fields. This index is calculated by examining the variety of Web of Science categories that the cited and co-citing papers are assigned to, with more diverse citations indicating higher interdisciplinarity. The interdisciplinarity rank ranges from 0 to 1. A score of 0 indicates that the core and co-citing papers are all within the same Web of Science category. A score of 1 indicates that that papers are evenly distributed across Web of Science categories.

The interdisciplinary index is calculated using the Normalized Shannon Entropy. The index is calculated as $I(topic) = -\Sigma^{n}(p_i \log(p_i)) / \log(n)$ with p_i the proportion of citations in Web of Science category i, and n the total number of categories (254).

In the figure below, the Emerging Topic has an Interdisciplinarity Index of .81 while the average Interdisciplinarity Index for all the Emerging Topics is .56. This tells me that this Topic has a relatively high degree of interdisciplinarity in all emerging topics that have the same primary Web of Science category.



The figure above shows the Interdisciplinarity Index (0.81) of the total papers compared to min (0.37), max (0.81) and average (0.56) for all of the Emerging Topics in this dataset. Read more

Read more about Research Horizon Navigator in our help article.