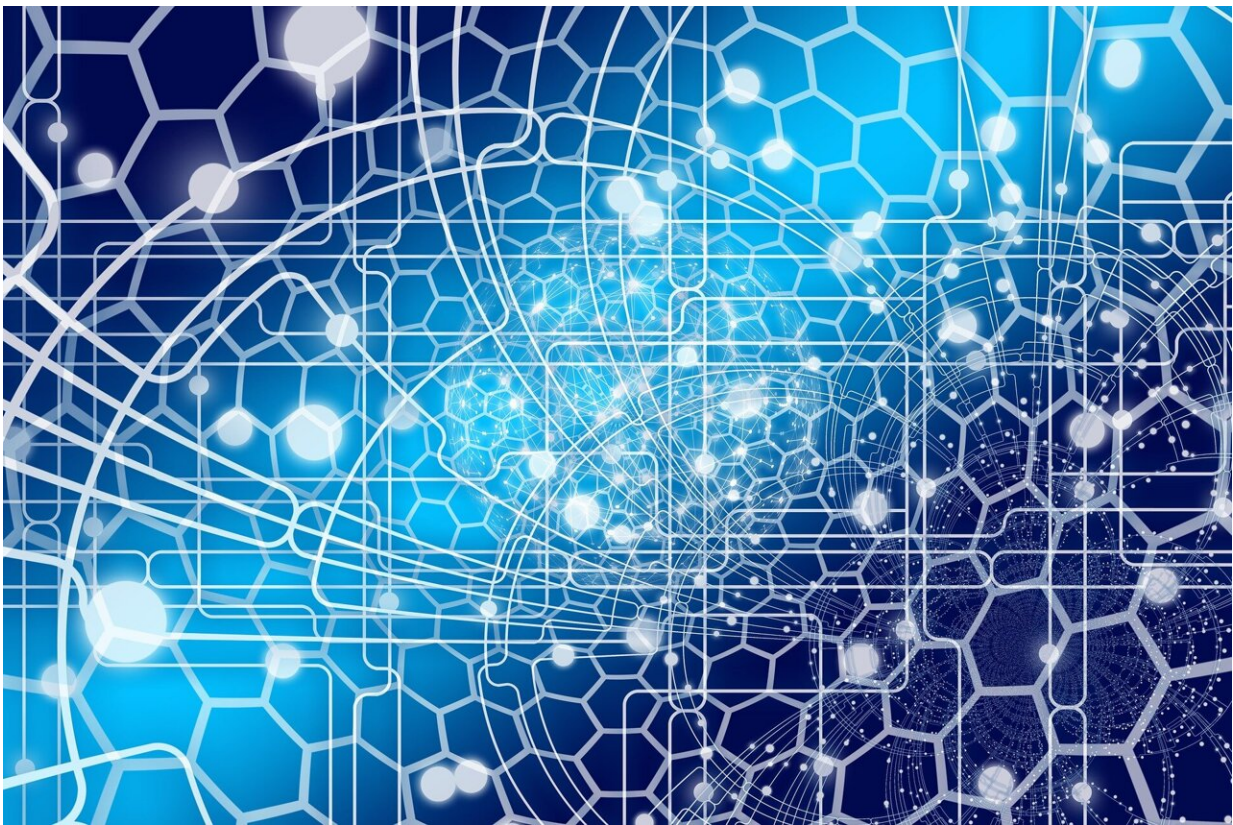


The impact of research globalization on the efficiency of emerging and Nobel-Prize-level topics

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Over the last 50 years, research activities have become increasingly globalized. Although the advantages of global homogenization and

standardization have been extensively discussed, their potential drawbacks, particularly in the field of scientific innovation, have received limited attention.

In a new study [published](#) in the *Journal of Informetrics*, researchers at University of Tsukuba explored the effects of research [globalization](#) by tracking the evolution of research topics over the last 50 years.

The study used PubMed, the most extensive repository of life sciences and medicine articles encompassing articles from 53 countries, such as the United States, China, and Japan.

Research findings reveal that although the total number of papers and research on emerging topics have increased with globalization and the improved economic strength of individual countries, the efficiency of producing Nobel Prize-level topics has declined significantly since 2000. This decline seems to be independent of a country's economic strength.

Furthermore, researchers discovered that the [standardization](#) of research topics reduces the efficiency of generating Nobel Prize-level topics, suggesting that research globalization drives this [homogenization](#).

The insights gained from this study provide valuable knowledge that can inform [research](#) policy in Japan.

More information: Bryan Mathis et al, Trends in emerging topics generation across countries in life science and medicine, *Journal of Informetrics* (2024). [DOI: 10.1016/j.joi.2024.101552](https://doi.org/10.1016/j.joi.2024.101552)

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