Global infrastructure, equal benefits?

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Globalization of the information infrastructure: challenges and opportunities

NISO+ 2022

STM Advancing trusted research

Introducing STM

- International Association of <u>S</u>cientific, <u>T</u>echnical and <u>M</u>edical Publishers

- Includes academic and professional publishers, learned societies, and university presses; established players as well as start-ups

- Over **140 members**, in over 20 countries around the world, covering **all scholarly disciplines**

- STM members collectively publish **66% of journal articles** and **10,000's of monographs and reference works**

- STM supports its members in advancing **trusted research** worldwide.

- STM works together to serve science and society by developing **standards and technology** to ensure research is of high quality, trustworthy and easy to access

<u>STM</u>

Introducing STM Solutions

- **STM Solutions** is the operational arm of STM, established to develop and manage forward-thinking shared infrastructures and collaborative services to support the scholarly communications community.

- Founded in 2021

- Focus points for 2022:
  - *Research Integrity*
  - *Access:* SeamlessAccess, GetFTR, Distributed Usage Logging, Article Sharing Framework

STM

Research is global

- A lot of research – e.g. most STEM fields – is international in nature

- Journals and publishers are often international in character

- **Fun fact**: There are 2500+ journals with the word "International" in their name*

*) Source: Scopus journal source list
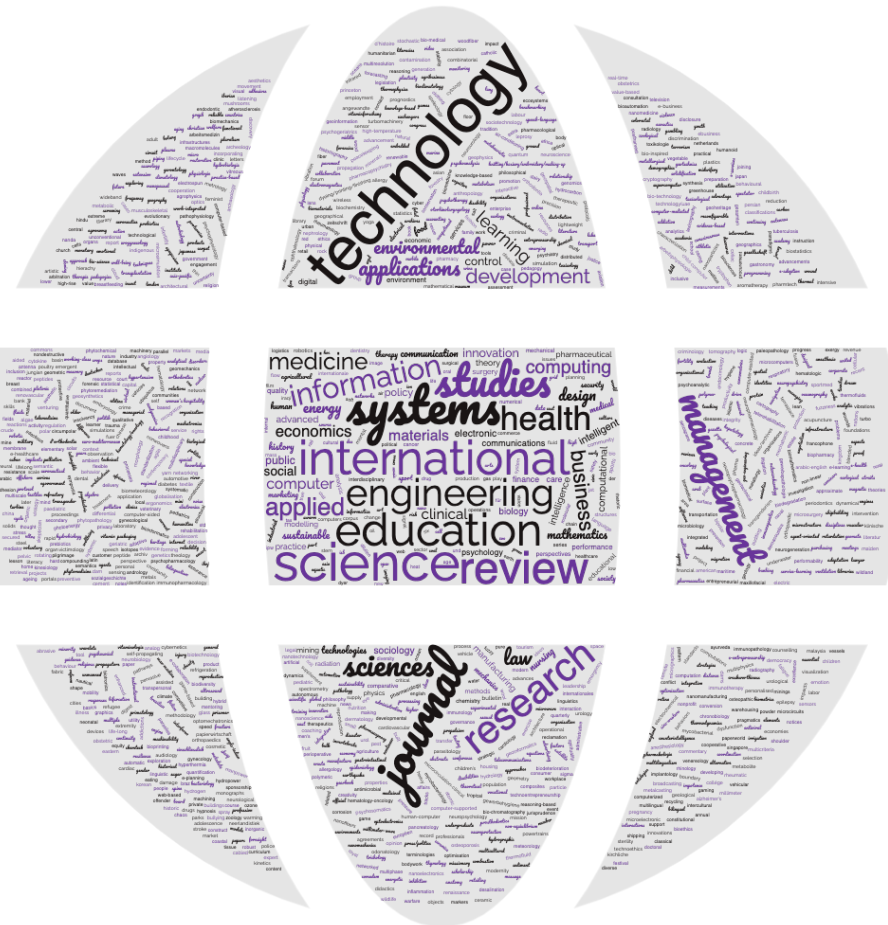
Research is global.. or is it?

Change in annual regional or national publication output as a percentage of all journal articles and reviews indexed globally in the Web of Science.[52]
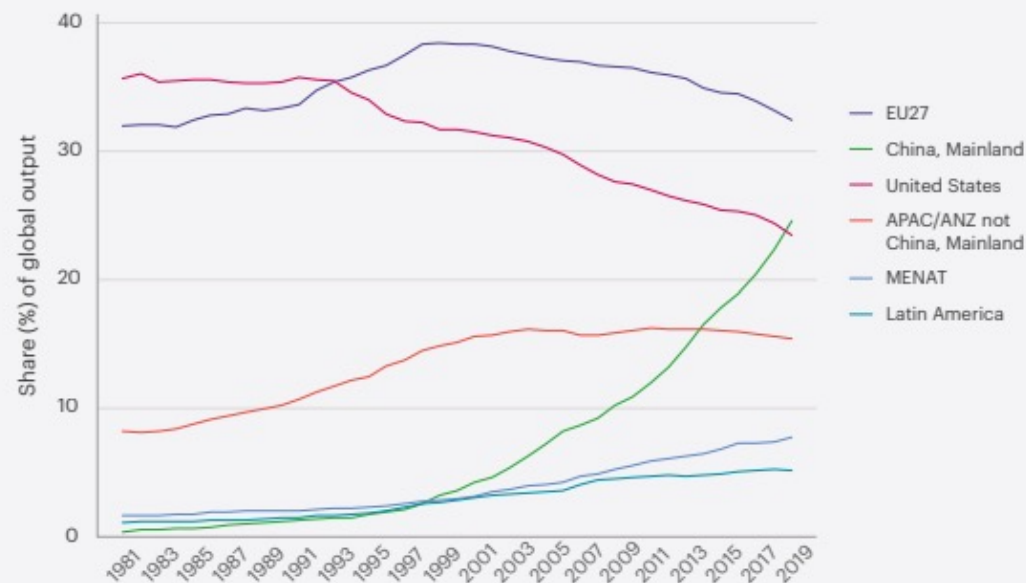
*Web of Science data for Mainland China includes Hong Kong and Macau

Source: STM Global Brief 2021 – Economics & Market Size
Reproduced from: Jonathan Adams et al., "The Changing Research Landscape of the Middle East, North Africa and Turkey," Global Research Report (ISI), p3.
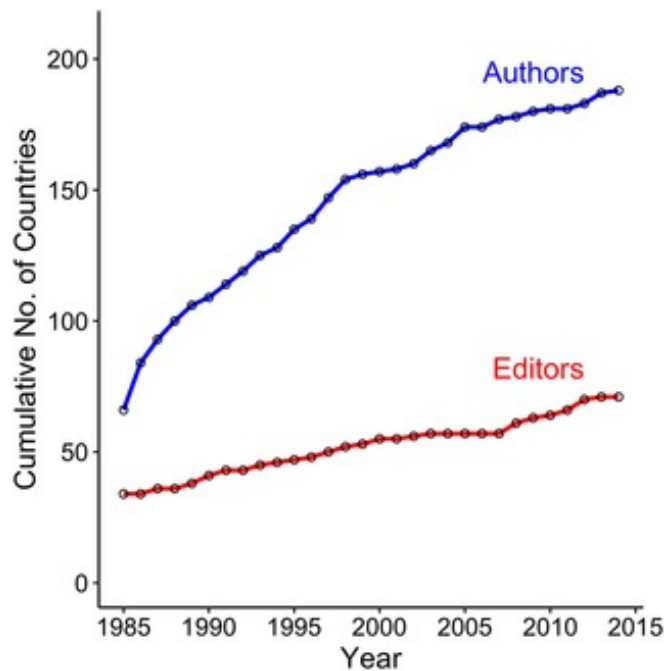
Research is global.. or is it?
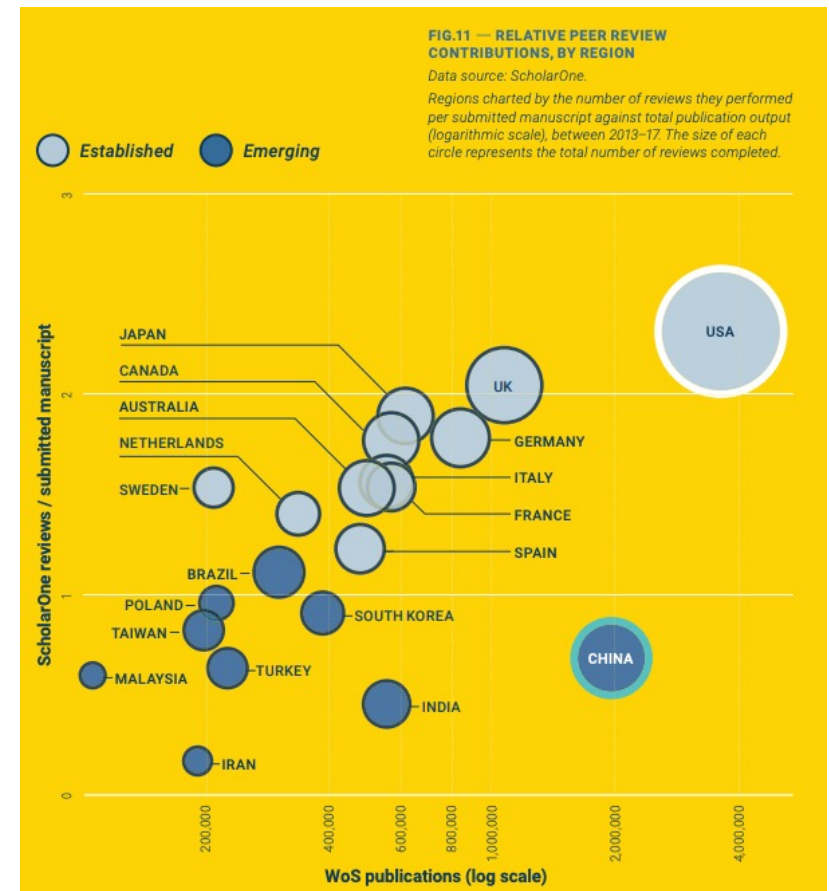

Source: "A persistent lack of international representation on editorial boards in environmental biology", Espin et al., PLOS Biology 2017 (https://doi.org/10.1371/journal.pbio.2002760)

Source: 2018 Global State of Peer Review (Publons)

Research is global.. or is it?

Source: "ArXiv.org Reaches a Milestone and a Reckoning", Scientific American, Jan 2022


ArXiv's Moderator Mismatch

Despite arXiv.org being the world's top repository for scientific preprints, the moderators who accept or reject submissions are overwhelmingly composed of researchers from the U.S. and Europe. Such imbalances can pose challenges for editorial fairness.

The paper submission data below include the 400 institutions that submitted the most papers, on average, from 2018 through 2020. Moderator data are current as of December 23, 2021.
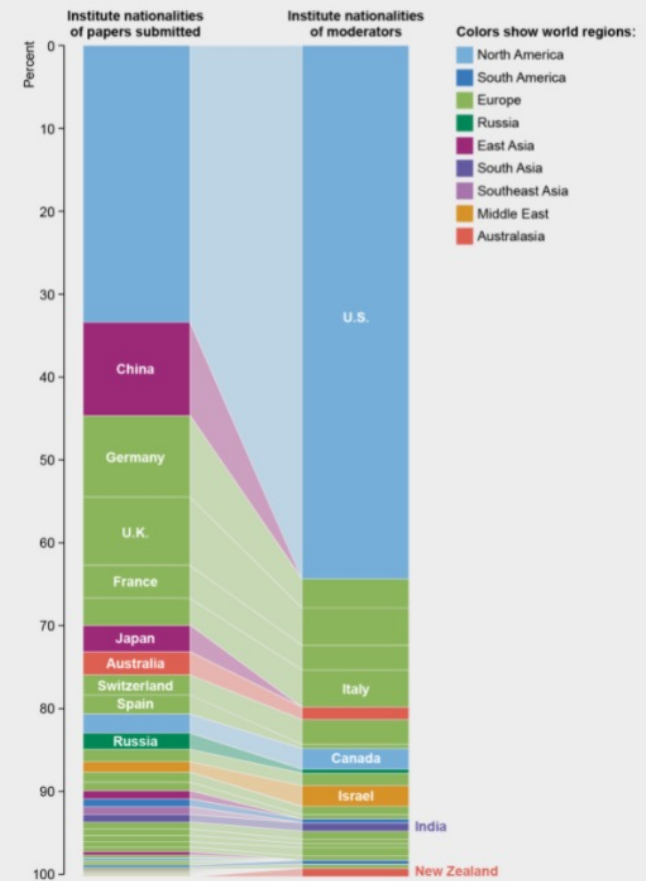
Credit: Amanda Montañez; Source: arXiv.org

Research *infrastructure* is global.. or is it?
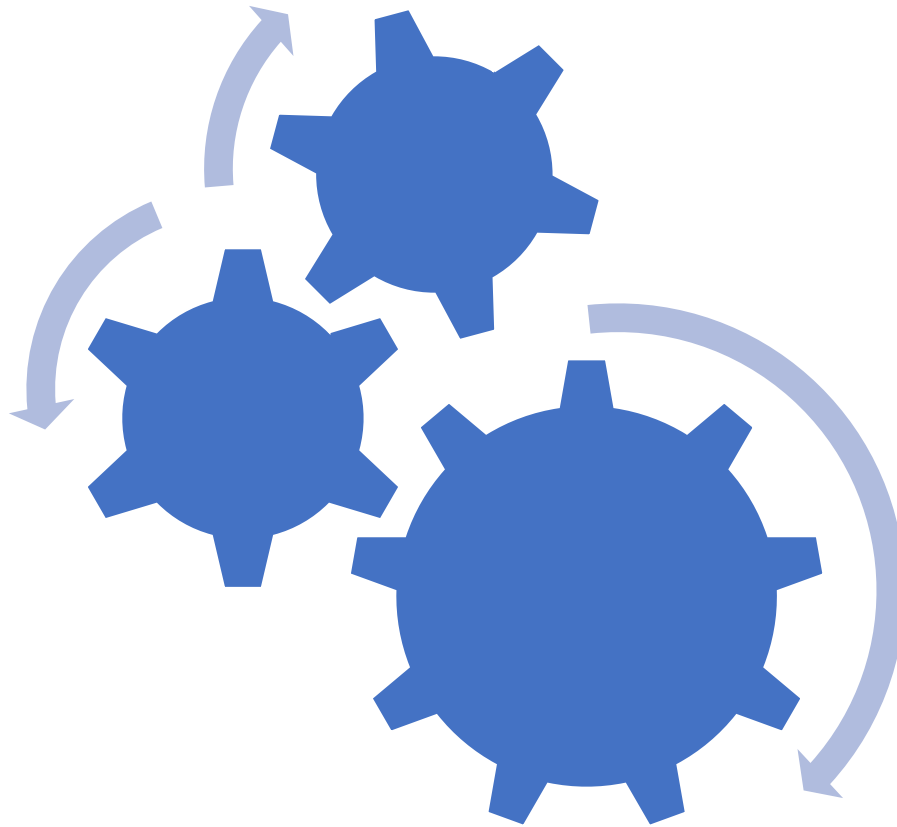
SeamlessAccess

- Service that streamline the online access experience for researchers

- Supports federated authentication

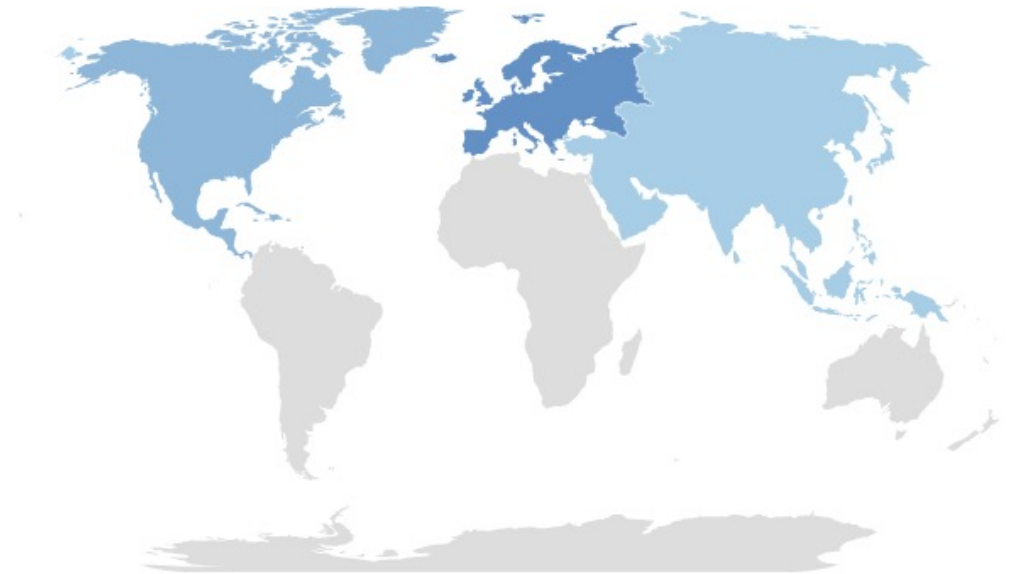- Map (illustrative) based on data from IOP publishing

https://seamlessaccess.org/

SeamlessAccess button helps the user access content through their institutional log-in:

Usage via Federated Autentication

as % of All Usage

0   10   20

Created with Datawrapper

GetFTR

- Service that accelerates the discovery and access of authoritative, trusted research

- Signals users' entitlements on discovery services and removes friction in the authentication process.
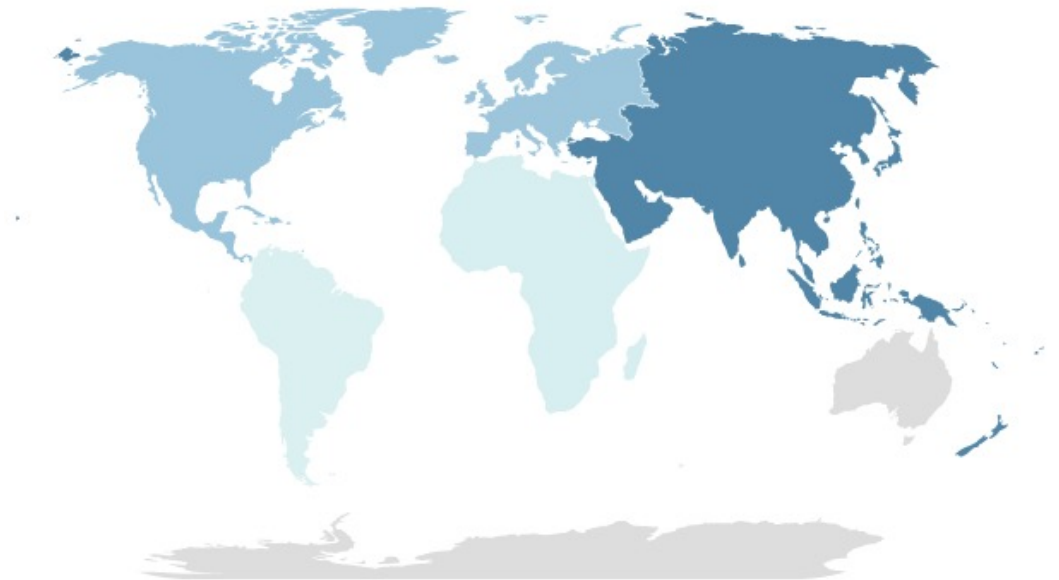
https://www.getfulltextresearch.com

GetFTR entitlement signaling helps the user to see which content they are entitled to

GetFTR utilisation per region

Created with Datawrapper

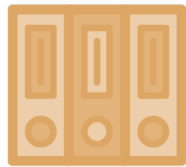MIT provides access to this PDF

Research *infrastructure* is global.. or is it?

Human factors: skills, capacity, processes

Services

Infrastructure

STM
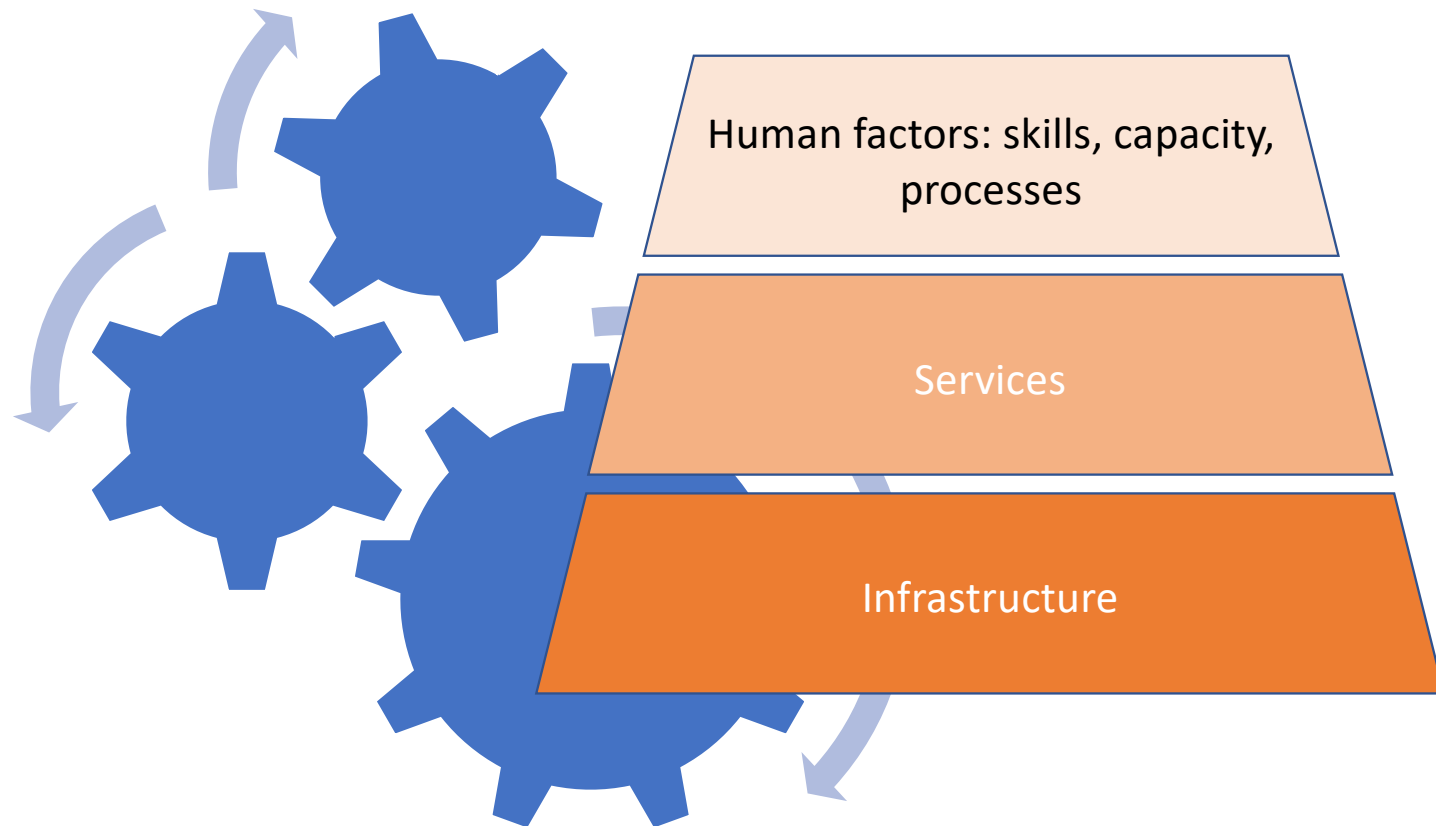
What is Research4Life?

- Research4Life aims to reduce the knowledge gap between industrialized countries and developing countries by providing **affordable access** to **academic and professional resources.**

30,000 journals

111,000 books

120 other resources

- Launched in 2001, it is now supported by 5 UN agencies, over 160 publishers and a range of other partners

research4life

Friends of Research4Life

- Established in 2020 as a fundraising vehicle for Research4Life, to enable expansion and greater impact

- US-based 501(c)(3) charitable organization with an independent governance structure and Board of Directors.

- Inaugural donors have all been publishers or individuals, but donations are welcome from all sources!

- Early focus of fundraising campaigns is on capacity development for librarians and researchers in R4L countries

- For more information, see https://friendsofresearch4life.org/

research4life