THE UNIVERSITY of EDINBURGH

Edinburgh Open Research Conference 2026

Fostering Multilingualism in Research and Science: Bridging Language Gaps in Global Research Communities

18 June 2026

Edinburgh

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1. Context and motivation

95% of global scientific publications appear in English, while **Spanish accounts for only about 1%** (González Alcaide et al., 2009; Badillo, 2022; Instituto Cervantes, 2023). This linguistic imbalance has significant implications.

- The public's ability to engage with scientific advances often depends on accessing content in their **mother tongue**.
- Advances in machine translation offer new opportunities but also come with challenges.
- The **scarcity of scientific publications in certain languages** limits the development of high-quality AI language tools (Muñoz-Basols et al., 2024).

A growing body of scholarship highlights how the dominance of English creates **barriers for researchers, science, and society**, affecting equity and inclusivity in knowledge production (Ramírez-Castañeda, 2020; St-Onge et al., 2021; Amano et al., 2023).

2. Researching research and researchers

ACTILEX Project
Linguistic Attitudes Toward Languages in Global Research Communities

Phase 1
1 language / 40+ countries

Phase 2
7 languages / 1 country

Phase 3
2 languages / 1 country

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Our funders:
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Same Migrant Community programme

Calling **Spanish-speaking scientists in London**

native scientists

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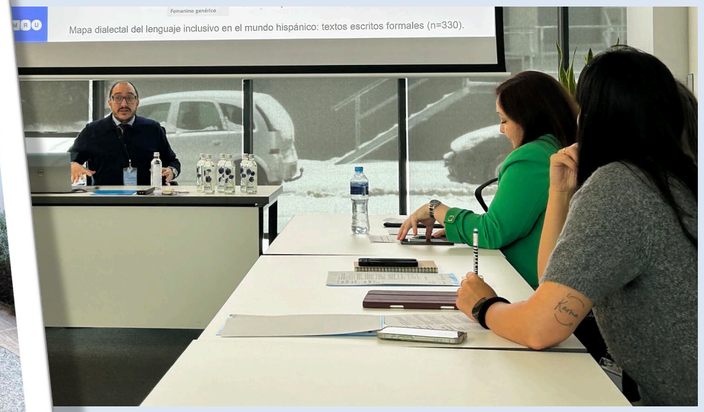
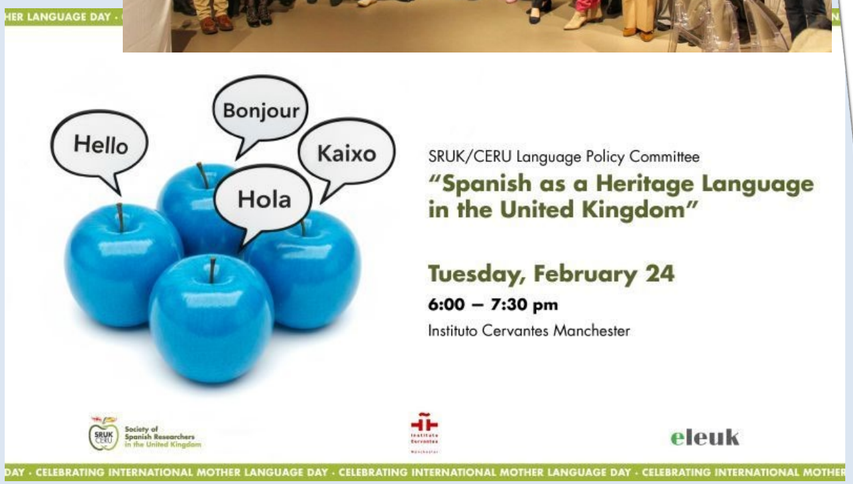
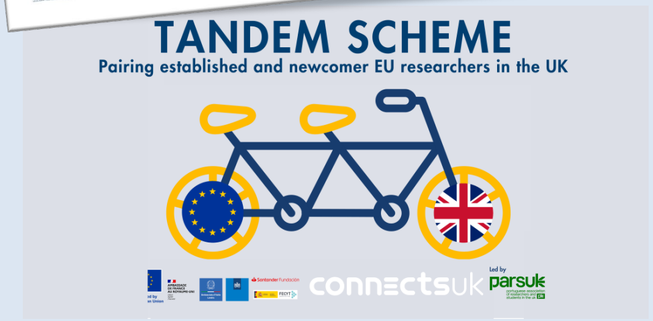








3. Project focus

This project investigates the linguistic attitudes and professional experiences of researchers whose first language is not English. It examines:

- How the dominance of English shapes **biases and structural disparities** in academia (Erdocia & Soler, 2023).
- How such dominance contributes to an **epistemic monoculture**, marginalising diverse perspectives and cultural nuances.
- How language barriers limit **access to scientific knowledge**, both for researchers and wider society (Ammon, 2001; Espinet, Izquierdo & Garcia-Pujol, 2013).



4. Global policy context

At the September 2024 G20 Research and Innovation Ministers' Meeting in Manaus (Brazil) leaders emphasized that **open science** and **open innovation** are essential for addressing global challenges and achieving the UN Sustainable Development Goals.

They endorsed:

- A **G20 Strategy for Open Innovation Cooperation**
- **Recommendations on inclusion, diversity and reducing inequalities** in science and technology



Research and Innovation Ministerial meeting at Manaus, 19.09.2024. G20 Brazil, 2024.

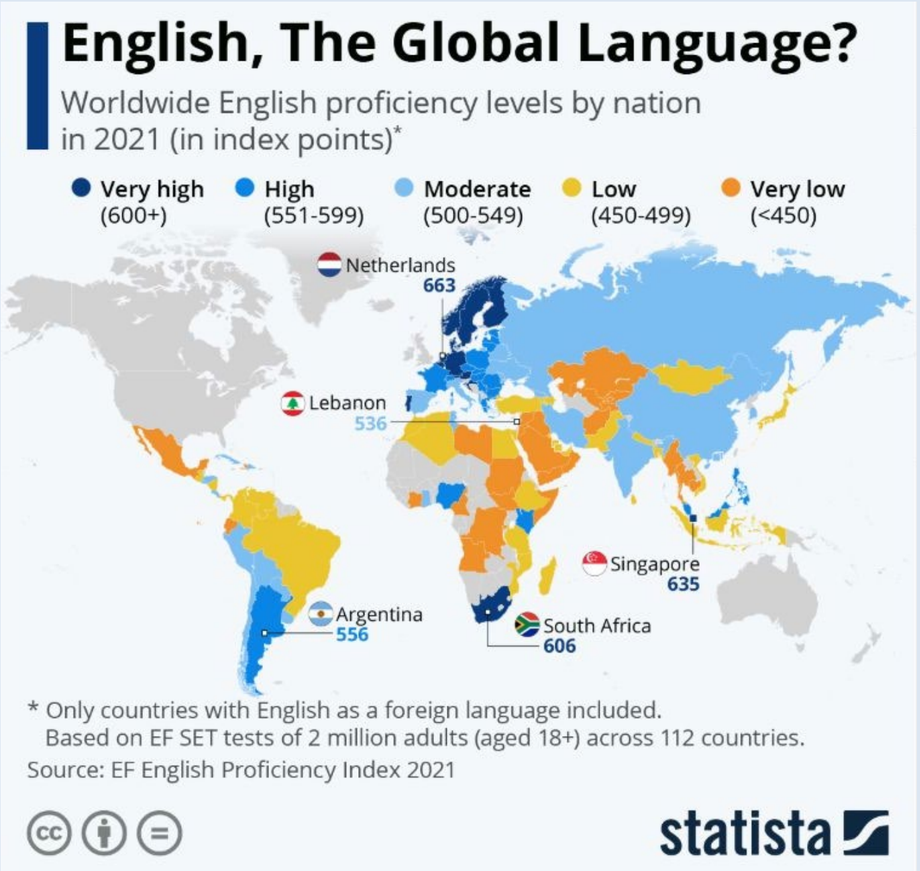
This project aligns with these goals by advocating for **multilingual approaches** to global knowledge production.

5. Language choice and audience in research

Language is shaped by the intended audience.

Speakers adjust their language through:

- **Convergence** = adapting to become more similar
- **Divergence** ≠ emphasising difference or expertise



Language choice reflects audience expectations, power structures, and identity:

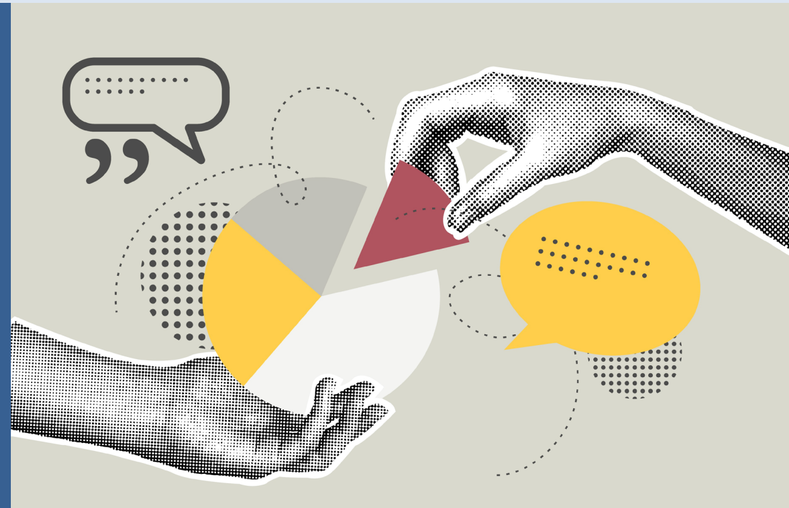
- **Publishing in English** → convergence toward the global scientific community
- **Communicating with local communities** → accommodation through local language

6. Multilingualism in research strategic importance

Promoting multilingualism in research and science:

- Broadens **access** to scientific findings for non-English-speaking communities.
- Promotes inclusivity, collaboration, and global knowledge exchange.
- Challenges **epistemic erasure** and **extractivism**, where research is produced in languages not understood by the communities involved (Chagnon et al., 2022).
- Raises **ethical questions** regarding the choice of language in scholarly communication.

This project proposes new ways of shaping **research dissemination** that reflect the **multilingual nature** of contemporary science and scientists.



7. Linguistic attitudes. Why they matter?

Language is not neutral:

- More than a tool for communication
- Carries *social meaning*
- Triggers positive or negative evaluations of languages, dialects, and accents
- Influences how people and communities are perceived

Linguistic attitudes are **a form of social positioning** focused on language and its use in society (Moreno-Fernández, 2009, p. 177).

Three dimensions:

- **Cognitive:** knowledge/beliefs about language
- **Affective:** feelings or emotional reactions
- **Conative:** readiness to act (e.g., discrimination, accommodation)



8. Methodological approach

The project adopts a **mixed-methods design**:

Quantitative methods

- Survey and statistical analysis
- Identify trends and relationships related to language practices among diasporic scientific communities

Qualitative methods

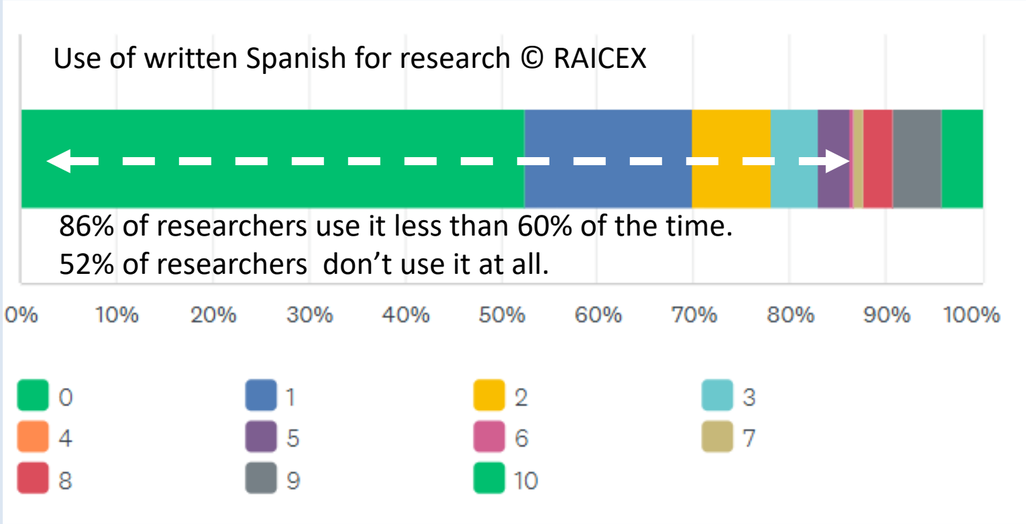
- Interviews and focus groups
- Explore motivations, experiences, and perceptions about multilingualism

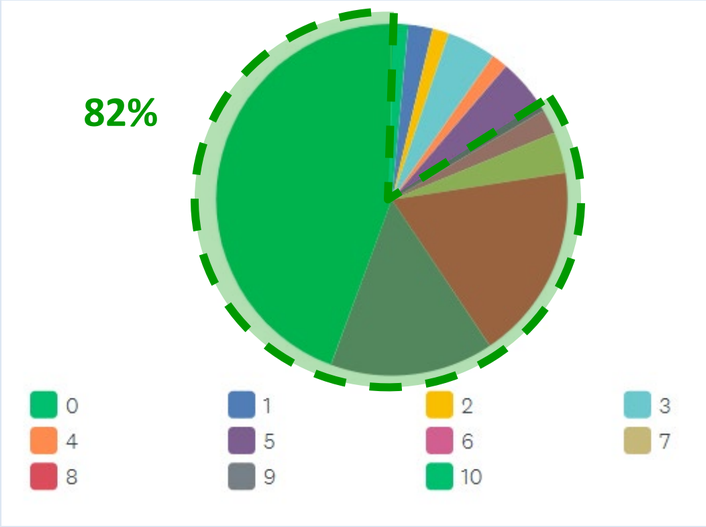


Project survey online announcement © RAICEX

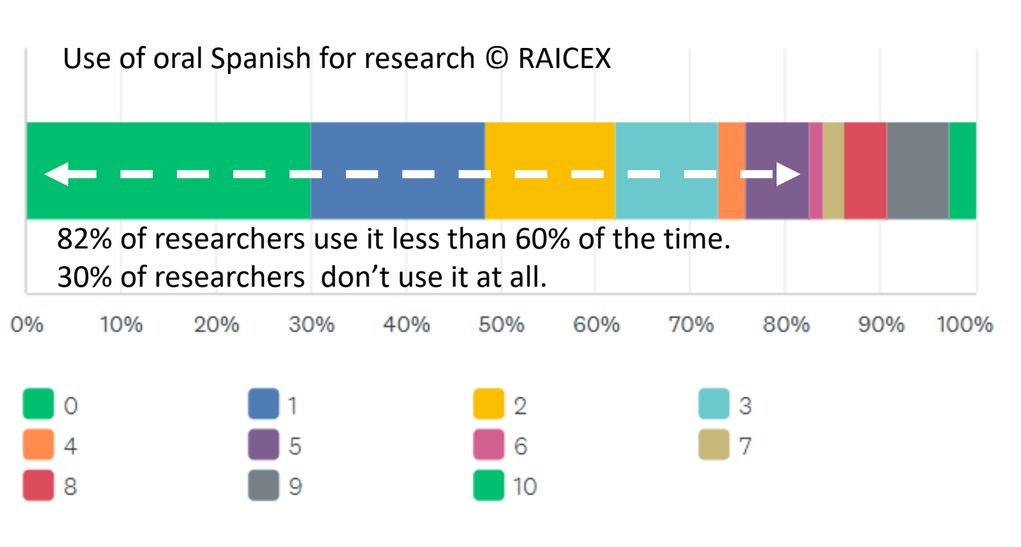
9. Phase 1: ACTILEX early findings (n=338)

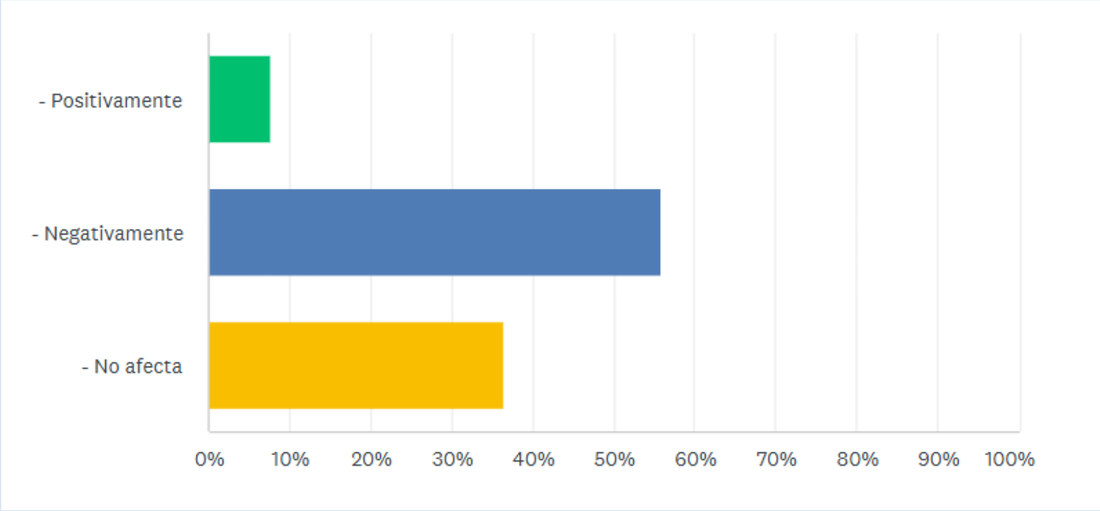
*Non-final results (restricted circulation)





Use of Spanish to communicate and take part in RAICEX © RAICEX





Academic peers perception of the quality of the research done in Spanish © RAICEX

10. Phase 2: Linguistic profile of CONNECTS-UK researchers (n=152)

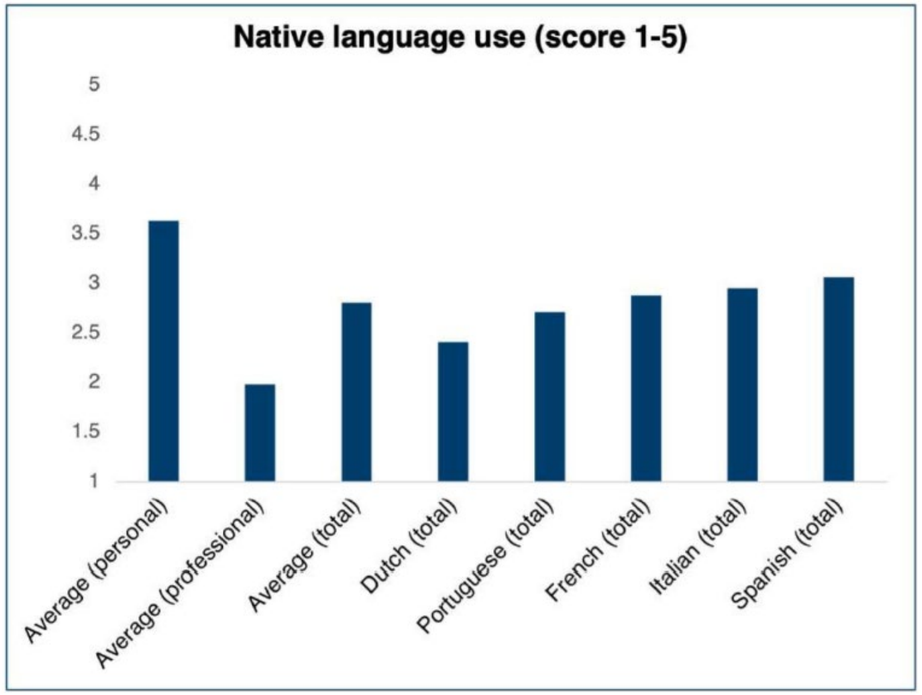


Figure 12. Native language use. Sample: 152.

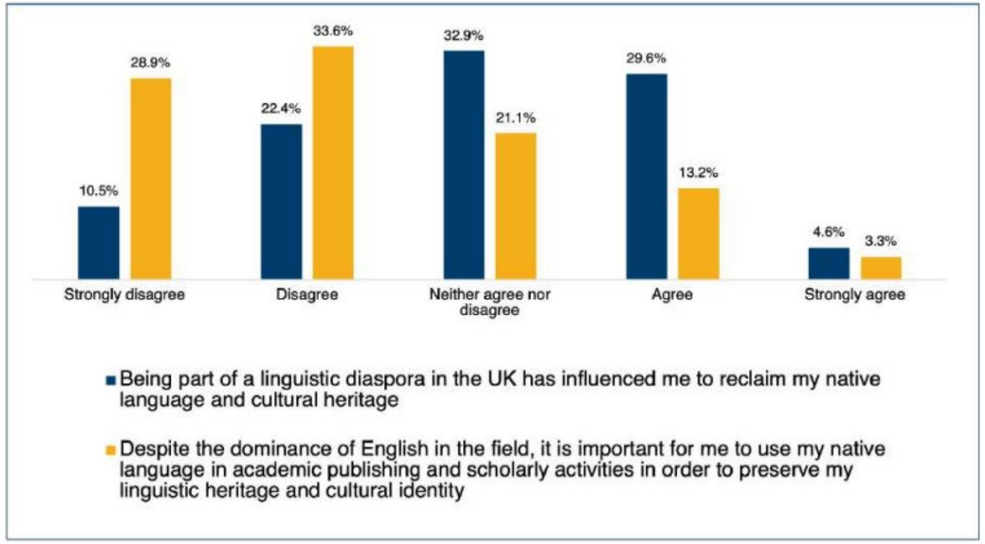


Figure 13. Attitudes toward use of native language. Sample: 152.

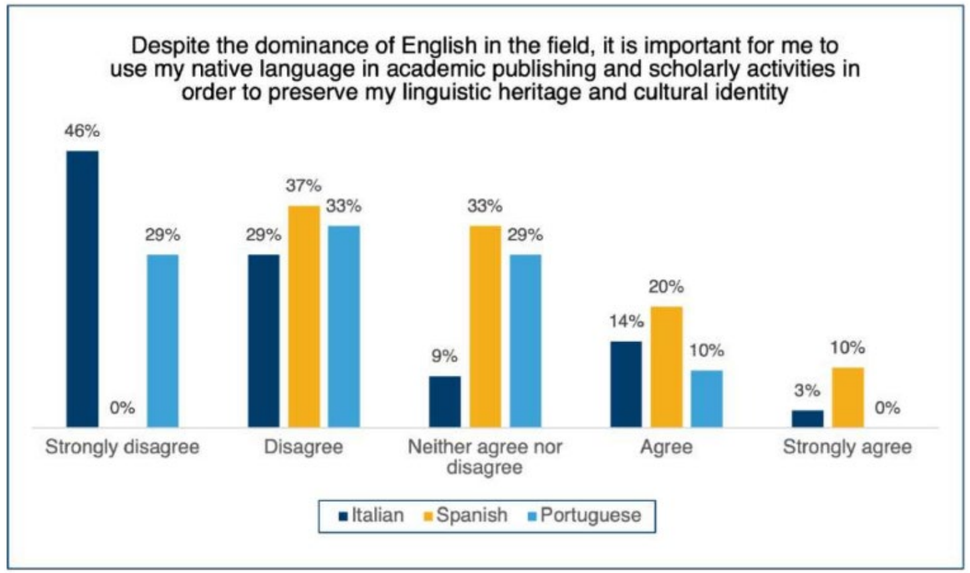


Figure 14. Attitudes toward use of native language in academia for Italian, Portuguese, and Spanish speakers. Sample: 86.

CONNECTS-UK (2026). *The Experiences, Challenges, and Perceptions of EU Researchers in the UK in the Post-Brexit Landscape Results from a survey analysis by CONNECTS-UK*. Pages 22-25. https://connects-uk.org/research/

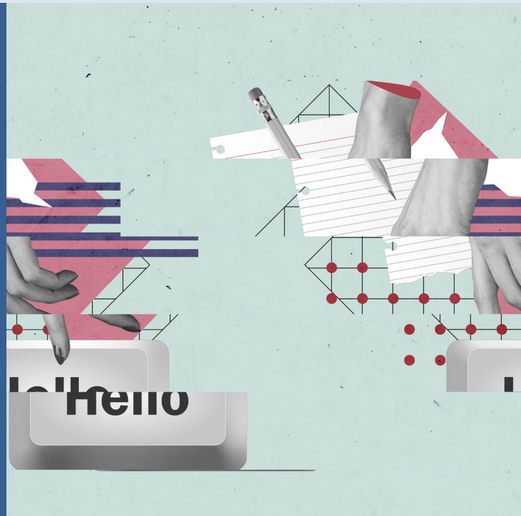
11. Broader impact and relevance

This project contributes to broader debates in **global governance**, including:

- Development and global inequalities
- The role of scientific expertise in policymaking
- Linguistic practices shaping knowledge dissemination

It aligns with **UNESCO Recommendation on Open Science** (2021) and **COARA Implementation Proposal for Language-Aware Assessments** (2025), both of which advocate for strengthening linguistic diversity in scholarly communication.

Given the worsening global **shortage of language skills**—crucial for societal cohesion, international collaboration, and future research—and the growing **dominance of English** driven by geopolitical, economic, and cultural pressures, multilingualism is at risk in public life. This project is more urgent than ever!



12. References

Amano, T., Ramírez-Castañeda, V., Berdejo-Espinola, V., Borokini, I., Chowdhury, S., Golivets, M., et al. (2023). The manifold costs of being a non-native English speaker in science. *PLoS Biol* 21 (7): e3002184. https://doi.org/10.1371/journal.pbio.3002184

Ammon, U. (2001). *The dominance of English as a language of science : effects on other languages and language communities*. Mouton de Gruyter.

Badillo Matos, A. (2022). *El portugués y el español en la ciencia: apuntes para un conocimiento diverso y accesible*. Real Instituto Elcano. https://www.realinstitutoelcano.org/monografias/el-portugues-y-el-espanol-en-la-ciencia-apuntes-para-un-conocimiento-diverso-y-accesible/

Chagnon, C. W., Durante, F., Gills, B. K., Hagolani-Albov, S. E., Hokkanen, S., Kangasluoma, S. M. J., … Vuola, M. P. S. (2022). From extractivism to global extractivism: the evolution of an organizing concept. *The Journal of Peasant Studies*, 49 (4), 760–792. https://doi.org/10.1080/03066150.2022.2069015

CONNECTS-UK (2026). *The Experiences, Challenges, and Perceptions of EU Researchers in the UK in the Post-Brexit Landscape Results from a survey analysis by CONNECTS-UK*. https://connects-uk.org/research/

Erdocia, I., & Soler, J. (2024). English language and the career progression of academics in Anglophone universities. *Higher Education*, 88 (3), 939–956. https://doi.org/10.1007/s10734-023-01151-4

Espinet, M., Izquierdo, M., & Garcia-Pujol, C. (2015). Can a Spanish science education journal become international? the case of *Enseñanza de las Ciencias*. *Cultural Studies of Science Education*, 10 (4), 1017–1031. https://doi.org/10.1007/s11422-013-9545-0

G20 Brazil 2024 (2024). *G20 Rio de Janeiro Leaders' Declaration*. https://g20.org/summit-and-logos/2024-brazil/

Gonzalez-Alcaide, G., Valderrama-Zurian, J., & Aleixandre-Benavent, R. (2009). La investigación teórica sobre la divulgación de la ciencia en España: situación actual y retos para el futuro. *Arbor*, 185 (738), 861–869. https://doi.org/10.3989/arbor.2009.738n1058

Fernández Vítores, D. (2023). El español: una lengua viva. Informe 2023. In *El español en el mundo. Anuario del Instituto Cervantes 2023*. Instituto Cervantes. Pp. 23-143. https://cvc.cervantes.es/lengua/anuario/anuario_23/default.htm

Moreno-Fernández, F. (2009). *Principios de sociolingüística y sociología del lenguaje*. Ariel.

Muñoz-Basols, J., Palomares Martín, M., & Moreno Fernández, F. (2024). El Sesgo Lingüístico Digital (SLD) en la inteligencia artificial: implicaciones para los modelos de lenguaje masivos en español. *Lengua y Sociedad*, 23 (2), 623-648. https://doi.org/10.15381/lengsoc.v23i2.28665

Pölönen, J., Garnier-Rizet, M., Greco, G. M., Kulczycki, E., & Soler Montes, C. (2025). *Implementation Proposal for Language-Aware Assessments*. CoARA WG on Multilingualism and Language Biases in Research Assessment. https://doi.org/10.5281/zenodo.17881907

Ramírez-Castañeda, V. (2020). Disadvantages in preparing and publishing scientific papers caused by the dominance of the English language in science: The case of Colombian researchers in biological sciences. *PloS One*, 15 (9), Article e0238372. https://doi.org/10.1371/journal.pone.0238372

St-Onge, S., Forgues, E., Larivière, V., Riddles, A. & Volkanova, V. (2021). *Portrait et défis de la recherche en français en contexte minoritaire au Canada*. Acfas. https://www.acfas.ca/sites/default/files/documents_utiles/rapport_francophonie_final_0.pdf

UNESCO (2021). *UNESCO's Recommendation on Open Science*. https://unesdoc.unesco.org/ark:/48223/pf0000379949.locale=en

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