

# The multi-scale and multi-lingual circulation of knowledge: an empirical study of the available data sources in Latin America

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# THE LATIN AMERICAN CIRCUIT

## NATIONAL INFORMATION SYSTEMS

**DEVELOPED SINCE 1950s**  
National scientific agencies; Documentation Centers, professionalized librarians and indexing systems  
**CLASE (1975)**  
**PERIODICA (1978)**

## Regional indexing systems and diamond journals

**BIREME (1967)**  
**CLACSO (1967)**



**LATINDEX 1995**  
**SCIELO 1998**  
**REDALYC 2003**  
**BIBLAT**

**25% of the total diamond journals**

## Dynamical book publishing industry

**FCE 1934**  
**Siglo XXI 1966**

**Open access publishers**



**CLACSO**

**UNAM, SciELO books**

**143 University publishers**

## Open Access national laws and regional network of repositories

### Legislation



**Perú (2013)**  
**Argentina (2013)**  
**México (2014)**  
**Uruguay (2013)**

### LA Referencia



**Federation of 10 countries, harvesting 790 institutions**  
**3.115.141 documents**

## Citizen and Participatory science

Regional tradition of University Extension with long-existing social interactions and co-production of knowledge

### Third Mission



**Major public universities since 1900**

# Global distribution of open access journals (Diamond and APC based). Operas Report 2021-Source: DOAJ



# Total number of articles in selected databases and indexing services, by language and database

| Language        | Scopus     | %      | WoS        | %      | OLIVA<br>(SciELO and<br>Redalyc) | %      | BIBLAT  | %    | LA Referencia | %    |
|-----------------|------------|--------|------------|--------|----------------------------------|--------|---------|------|---------------|------|
| Spanish         | 373,419    | 1.53%  | 270,632    | 0.92%  | 345,391                          | 43.70% | 344,666 | 58%  | 367,517       | 29%  |
| Portuguese      | 120,613    | 0.49%  | 131,204    | 0.5%   | 253,648                          | 32.09% | 136,533 | 23%  | 531,981       | 42%  |
| English         | 20,600,733 | 84.35% | 28,142,849 | 95.86% | 188,979                          | 23.91% | 88,157  | 14%  | 353,318       | 28%  |
| Other languages | 3,328,831  | 13.63% | 812,134    | 2.77%  | 2,286                            | 0.30%  | No info | 5%   | 2,652         | 1%   |
| Total           | 24,423,596 | 100%   | 29,356,819 | 100%   | 790,304                          | 100%   | 593,738 | 100% | 1,255,468     | 100% |

Beigel. F. (2022) "The open science project in an unequal world", in Relaciones Internacionales. Universidad Autónoma de Madrid. Forthcoming in <https://revistas.uam.es/relacionesinternacionales>

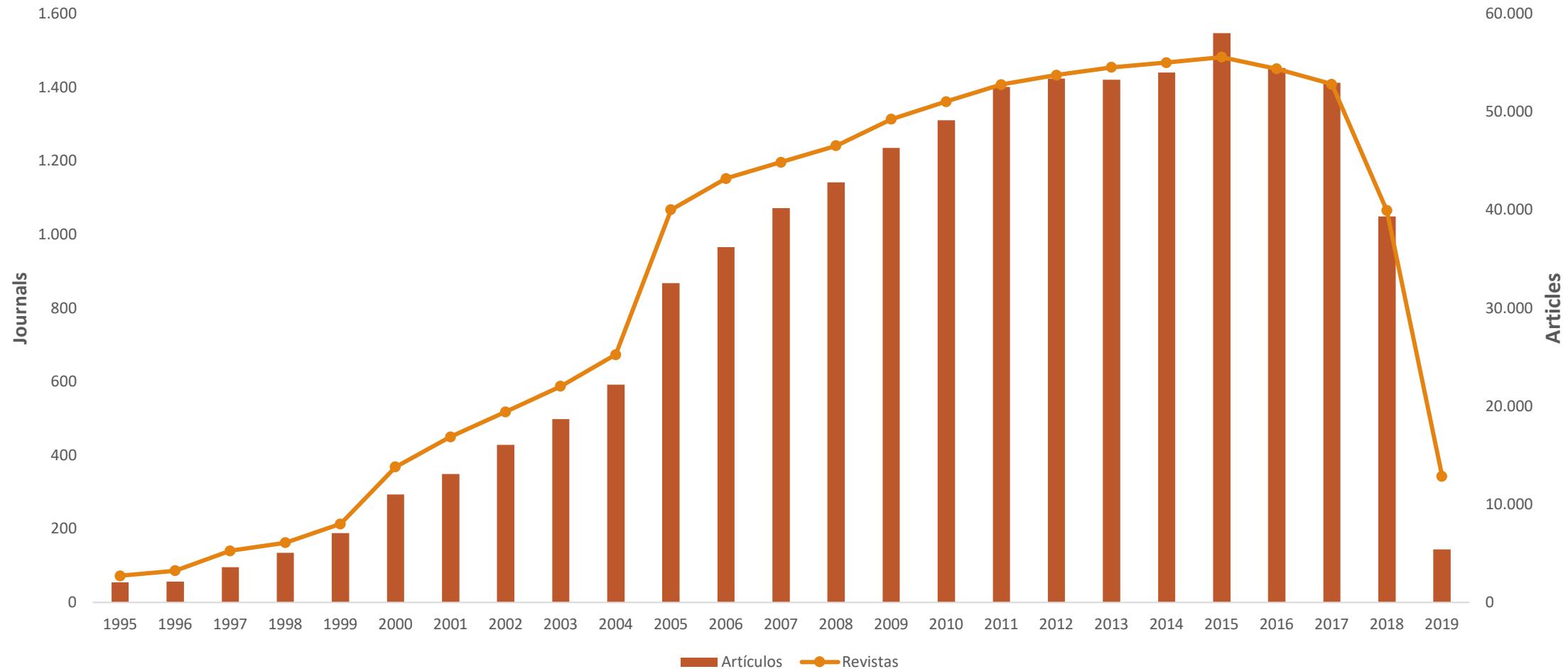
**Journals  
published in  
Ibero-American  
countries and  
indexed in Latin  
American  
services, June  
2021**

| Country              | Catálogo 2.0 | BIBLAT      | Redalyc    | Scielo      |
|----------------------|--------------|-------------|------------|-------------|
| Argentina            | 296          | 310         | 65         | 153         |
| Bolivia              | 9            | 10          | 3          | 23          |
| Brasil               | 214          | 1013        | 196        | 398         |
| Chile                | 166          | 210         | 28         | 126         |
| Colombia             | 45           | 443         | 209        | 254         |
| Costa Rica           | 83           | 83          | 33         | 14          |
| Cuba                 | 56           | 216         | 30         | 52          |
| Ecuador              | 186          | 54          | 15         | 0           |
| El Salvador          | 5            | 9           | 0          | 0           |
| España               | 776          |             | 52         | 52          |
| Guatemala            | 5            | 18          | 0          | 0           |
| Haití                |              | 1           | 0          | 0           |
| Honduras             | 3            | 9           | 0          | 0           |
| Martinica            | 1            |             | 0          | 0           |
| México               | 263          | 1324        | 112        | 200         |
| Nicaragua            | 13           | 5           | 150        | 0           |
| Panamá               | 23           | 13          | 1          | 0           |
| Paraguay             | 11           | 5           | 0          | 0           |
| Perú                 | 148          | 63          | 20         | 20          |
| Portugal             | 31           |             | 5          | 44          |
| Puerto Rico          | 11           | 26          | 1          | 0           |
| República Dominicana | 14           | 5           | 1          | 0           |
| Uruguay              | 34           | 47          | 9          | 0           |
| Venezuela            | 26           | 232         | 35         | 17          |
| <b>TOTAL</b>         | <b>2424</b>  | <b>4087</b> | <b>965</b> | <b>1353</b> |

**OLIVA database. Redalyc+SciELO Latin American journals (june 2019)**

| <b>Journal country</b> | <b>Journals</b> | <b>Documents</b> | <b>Authors</b>   | <b>Articles</b> | <b>Article authors</b> |
|------------------------|-----------------|------------------|------------------|-----------------|------------------------|
| <b>Brasil</b>          | <b>506</b>      | <b>444.332</b>   | <b>1.579.011</b> | <b>396.293</b>  | <b>1.476.492</b>       |
| Colombia               | 291             | 102.762          | 241.335          | 90.530          | 224.630                |
| <b>México</b>          | <b>283</b>      | <b>120.475</b>   | <b>299.471</b>   | <b>100.355</b>  | <b>273.002</b>         |
| Argentina              | 167             | 46.237           | 121.052          | 35.919          | 104.093                |
| Chile                  | 144             | 69.095           | 199.308          | 57.032          | 178.521                |
| Venezuela              | 97              | 34.939           | 92.097           | 30.161          | 85.814                 |
| Cuba                   | 82              | 46.052           | 160.371          | 41.621          | 149.736                |
| Costa Rica             | 48              | 16.313           | 35.322           | 14.816          | 33.199                 |
| Perú                   | 37              | 13.902           | 40.558           | 11.773          | 37.066                 |
| Uruguay                | 25              | 4.756            | 14.914           | 3.680           | 12.866                 |
| Bolivia                | 22              | 4.491            | 10.080           | 3.629           | 8.767                  |
| Ecuador                | 11              | 3.440            | 5.631            | 2.877           | 5.002                  |
| Puerto Rico            | 5               | 1.253            | 1.841            | 816             | 1.382                  |
| Panamá                 | 1               | 408              | 427              | 333             | 341                    |
| Rep. Dominicana        | 1               | 527              | 877              | 469             | 793                    |
| <b>Total</b>           | <b>1.720</b>    | <b>908.982</b>   | <b>2.802.295</b> | <b>790.304</b>  | <b>2.591.704</b>       |

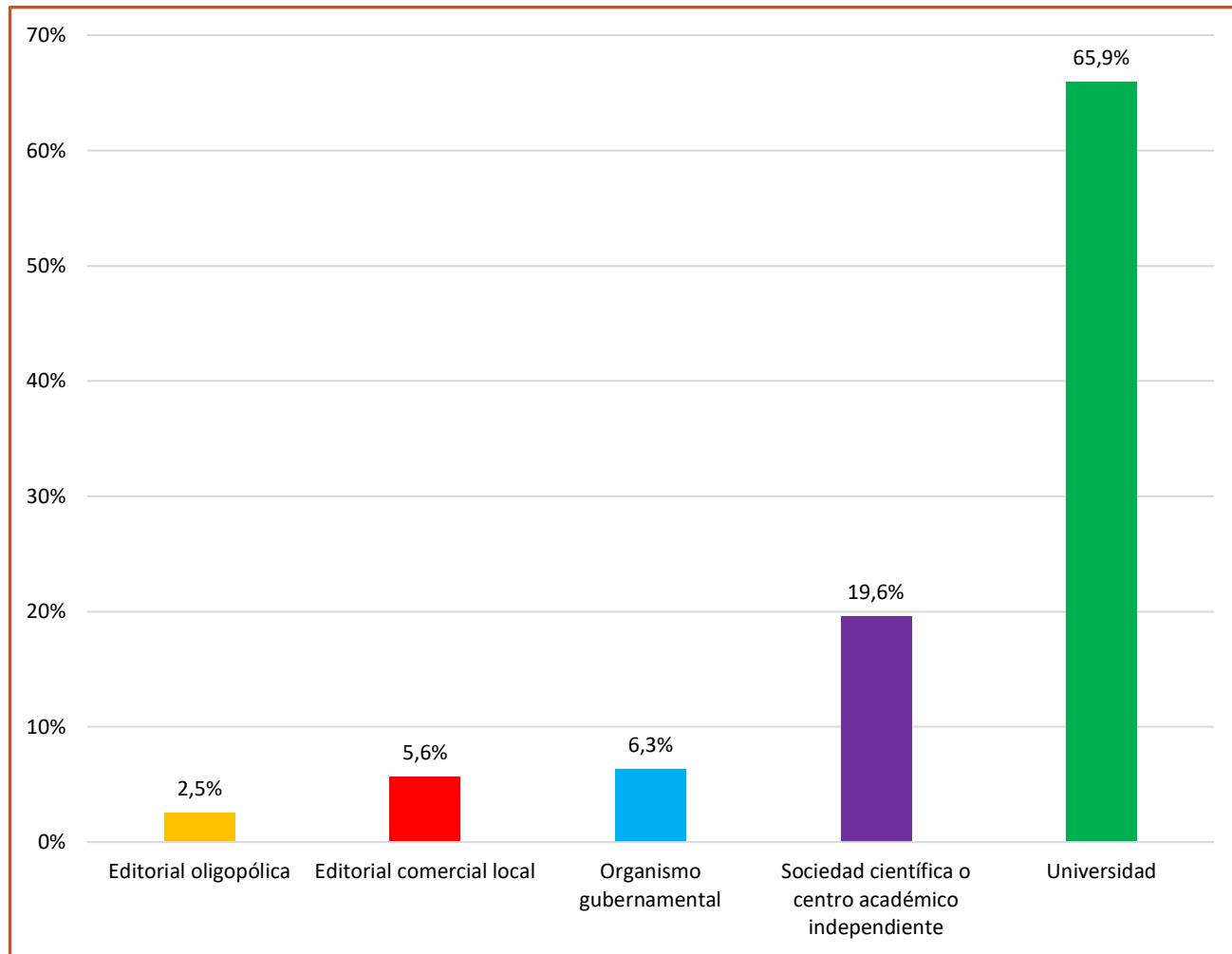
## OLIVA: Journals with at least 1 article published per year and total articles published per year 1995-2019.



**OLIVA.** 19 publishers editing  
more than 10 journals,  
n=422/1720

| Publisher   | Journals edited |
|---|-----------------|
| Universidad Nacional Autónoma de México           | 61              |
| Universidade de São Paulo, Brasil                 | 47              |
| Editorial de Ciencias Médicas, Cuba               | 38              |
| Universidad de los Andes, Colombia                | 36              |
| Universidad Nacional de Colombia                  | 36              |
| Universidad de Antioquia, Colombia                | 22              |
| Pontificia Universidad Javeriana, Colombia        | 22              |
| Universidad de Costa Rica                         | 19              |
| Universidad de Chile                              | 16              |
| Universidad de Buenos Aires, Argentina            | 16              |
| Pontificia Universidad Católica de Chile          | 16              |
| Universidad Estadual de Maringá, Brasil           | 14              |
| Universidad Federal de Santa Catarina, Brasil     | 13              |
| Universidad de Guadalajara, México                | 12              |
| Universidad Nacional de La Plata, Argentina       | 12              |
| Universidade Federal de Rio de Janeiro, Brasil    | 11              |
| Universidad Federal de Río Grande del Sur, Brasil | 11              |
| Universidad del Valle, Colombia                   | 10              |
| Universidade Federal de Minas Gerais, Brasil      | 10              |

## OLIVA. Journals by business model n=1.720



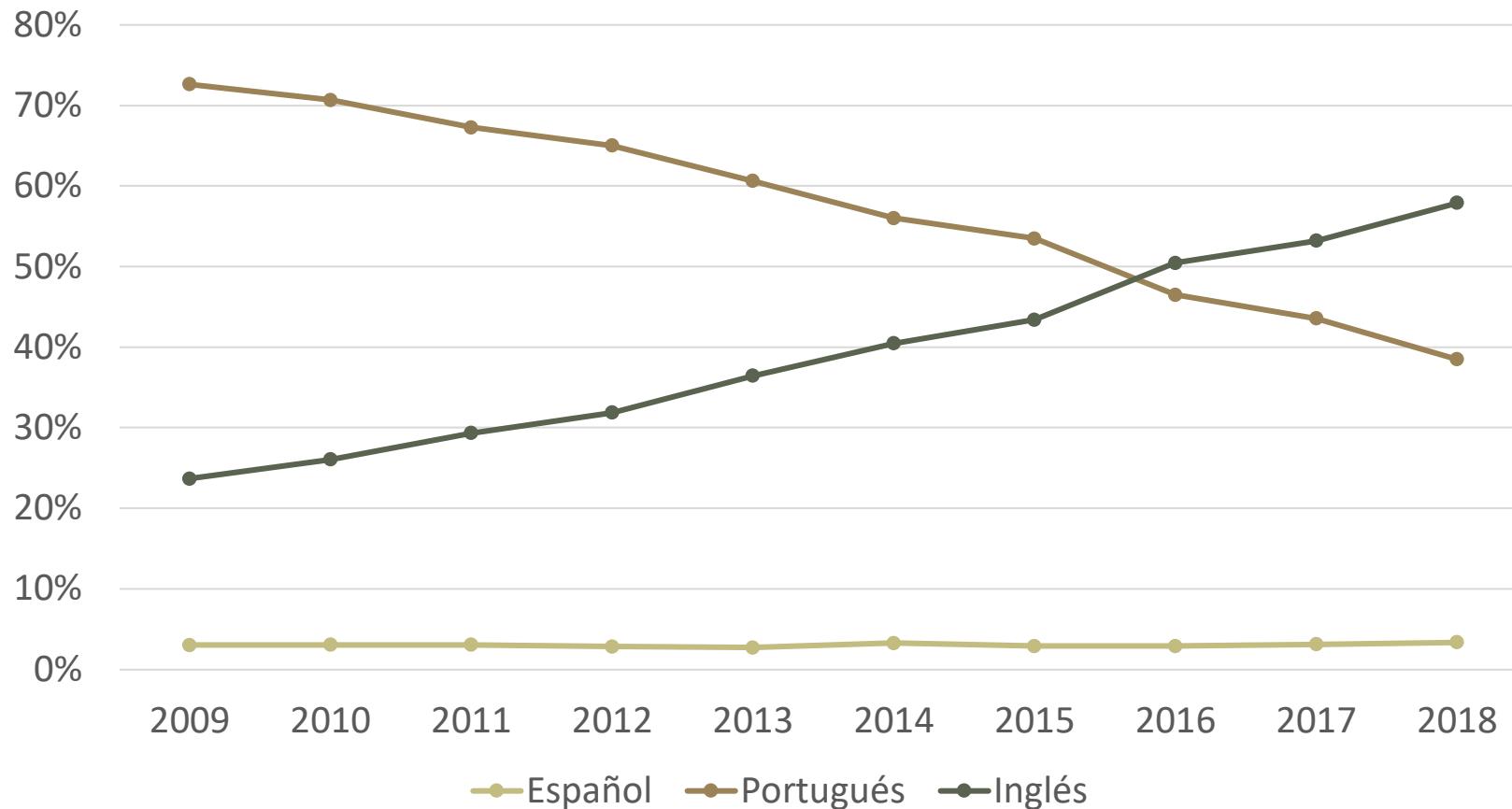
182 journals with APC, of which 60% are edited in Brazil

90% diamond journals

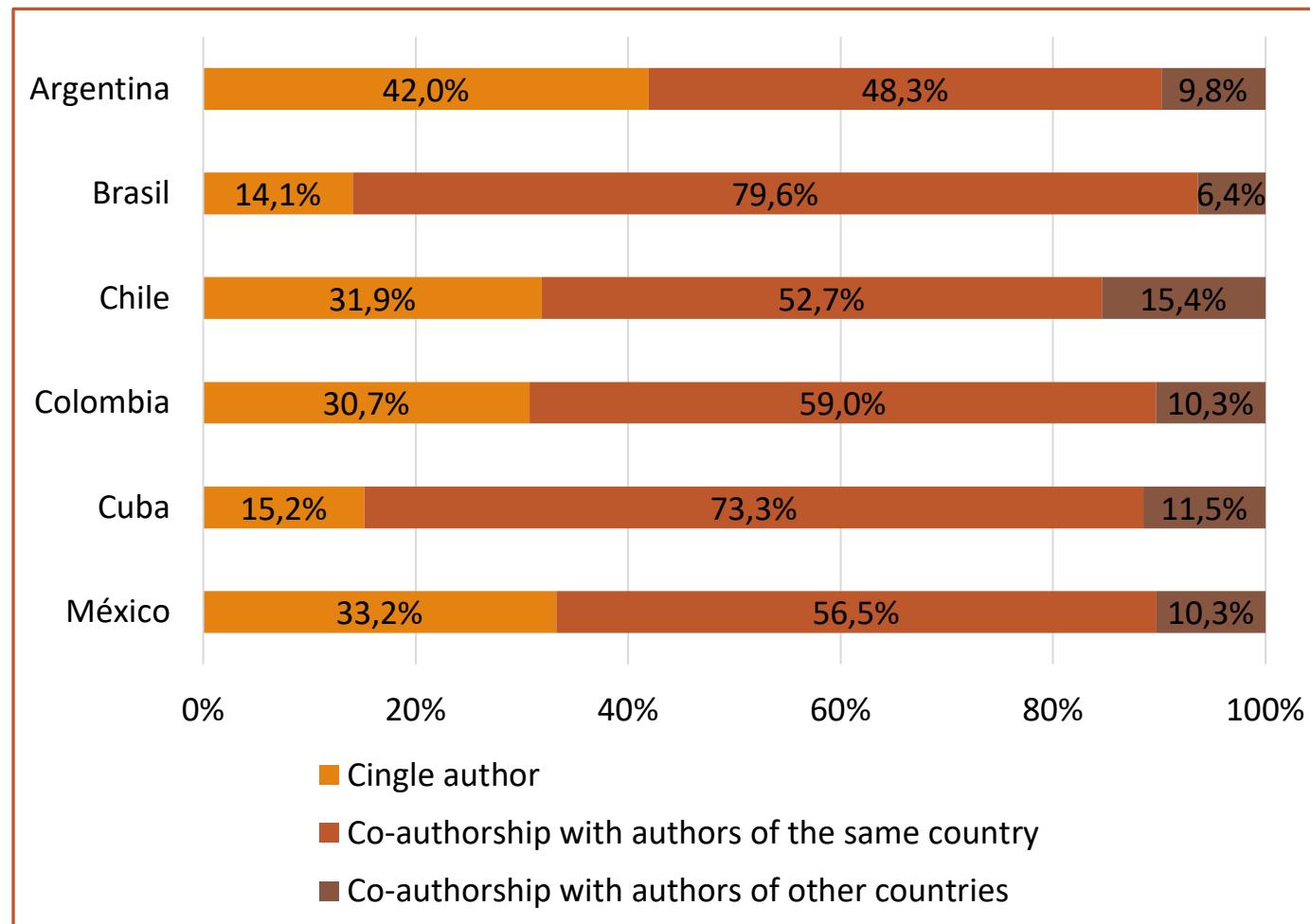
**OLIVA. Total Articles by language (N=790.304).**

| Language     | Articles [%]  |
|--------------|---------------|
| Spanish      | 43,7%         |
| Portuguese   | 32,09%        |
| English      | 23,91%        |
| French       | 0,2%          |
| No data      | 0,12%         |
| <b>Total</b> | <b>100,0%</b> |

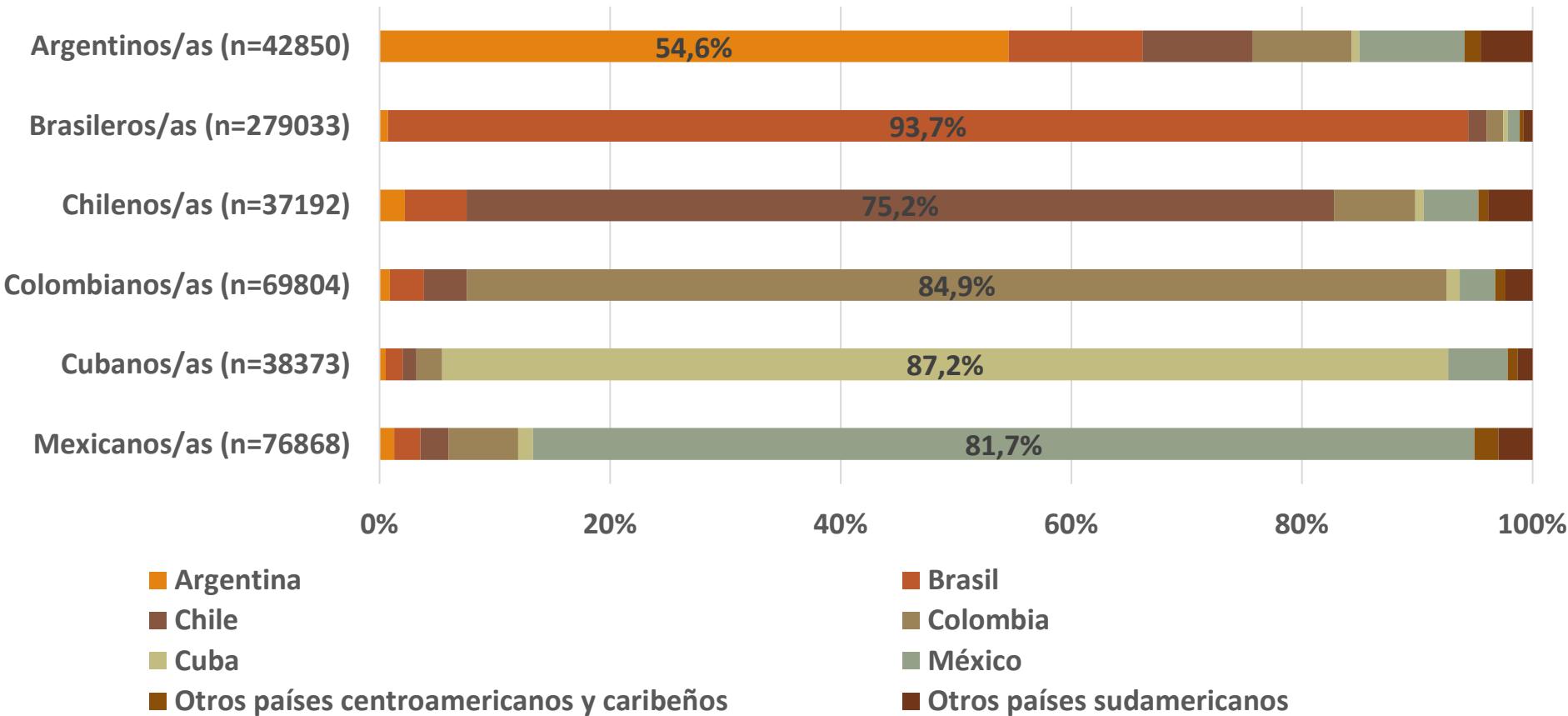
OLIVA. Evolution of articles in Brazilian journals by language, 2009-2018.



*OLIVA. Authorship in articles by authors from six countries (n=492.308).*



## OLIVA. Articles by authors from selected countries by country of the journal



BRAZIL-SciELO Collection. Articles with 2 or more authors by regional affiliation and discipline of the journal, 2016-2020 (N=58.148).

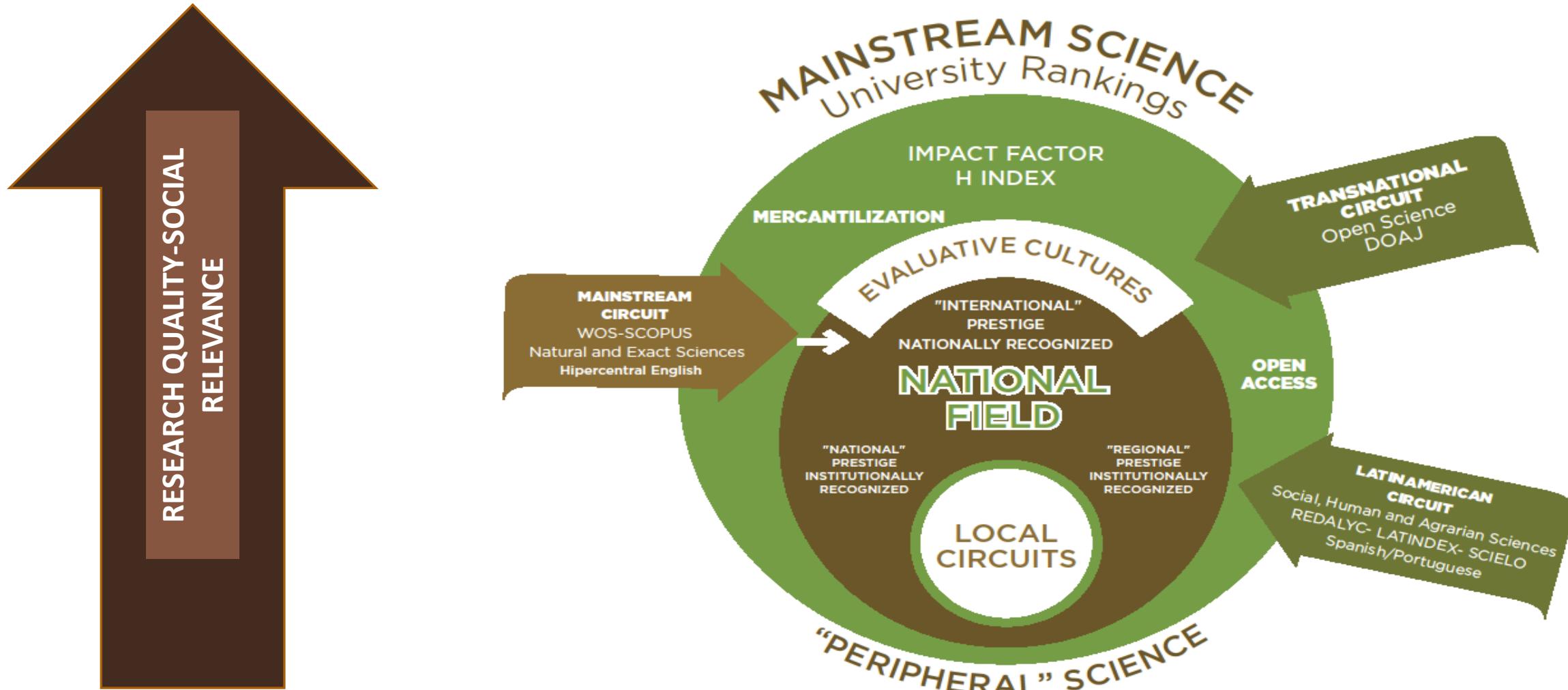
NATIONAL COLLABORATION  
IN BRAZIL.  
ENDOGAMY?

| Discipline of Journal        | 1 State | 2 States | 3 and more States | Total |
|------------------------------|---------|----------|-------------------|-------|
| Ciencias Agrícolas           | 48,3%   | 37,6%    | 14,1%             | 100%  |
| Ciencias Exactas y Naturales | 50,2%   | 37,3%    | 12,5%             | 100%  |
| Ciencias Biológicas          | 51,6%   | 35,3%    | 13,1%             | 100%  |
| Multidisciplinarias          | 55,0%   | 33,3%    | 11,7%             | 100%  |
| Ingenierías                  | 62,0%   | 30,9%    | 7,1%              | 100%  |
| Ciencias de la Salud         | 63,1%   | 28,4%    | 8,5%              | 100%  |
| Ciencias Humanas             | 64,8%   | 29,9%    | 5,3%              | 100%  |
| Ciencias Sociales Aplicadas  | 66,2%   | 29,8%    | 4,0%              | 100%  |
| Ling., Letras y Artes        | 68,9%   | 29,5%    | 1,6%              | 100%  |
| Conjunto                     | 59%     | 31,9%    | 9,1%              | 100%  |

BRAZIL-SciELO Collection. Articles with at least one author from the more productive states, according with the State of the co-authors.

| State             | With co-authors from the same State | With co-authors from the other 4 productive States | With co-authors from the rest of the Brazilian States (22) | Total |
|-------------------|-------------------------------------|--|--|-------|
| Minas Gerais      | 52,9%                               | 24,4%  | 22,7%  | 100%  |
| Paraná            | 53,2%                               | 26,6%  | 20,2%  | 100%  |
| Rio de Janeiro    | 54,4%                               | 23,7%  | 21,9%  | 100%  |
| Rio Grande do Sul | 58,4%                               | 20,5%  | 21,1%  | 100%  |
| São Paulo         | 57,9%                               | 20,1%  | 22,0%  | 100%  |

## DIVERSE CIRCUITS AND RESEARCH AGENDAS IN THE PRODUCTION OF KNOWLEDGE



Thank you  
Gracias

