

Exploring ORCID Adoption and Metadata Presence in Spain's Research Landscape

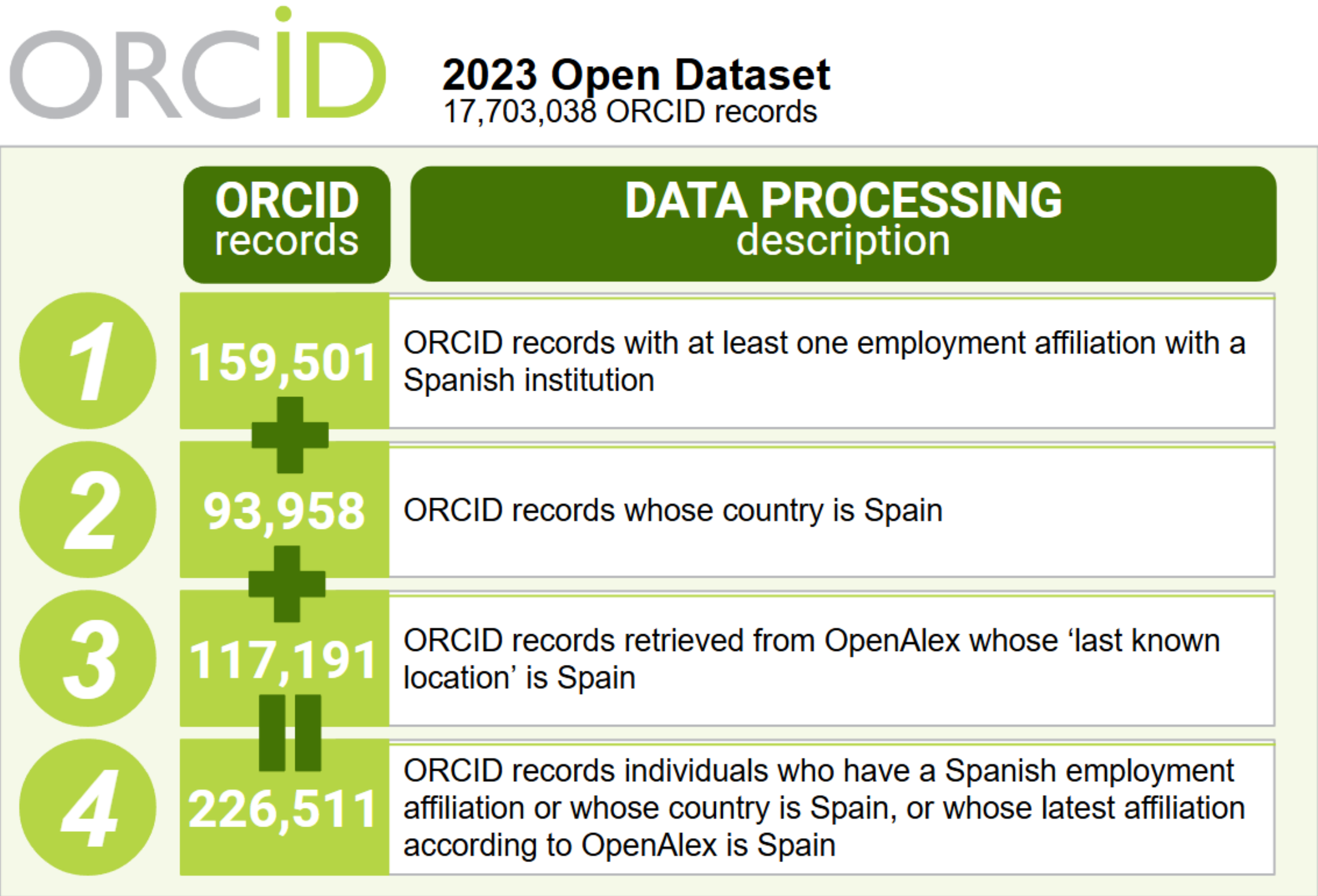
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Introduction

In the dynamic context of global scientific research, persistent identifiers (PIDs), such as ORCID IDs, have become vital tools. These identifiers ensure academic integrity and enhance the visibility of researchers' work. This work introduces a methodological framework for identifying and analyzing Spanish researchers in ORCID, using supplementary data from OpenAlex. We aim to develop reliable methods to identify ORCID records of researchers in Spain, examine profile updates, and assess the completeness of metadata in various disciplines.

Methods

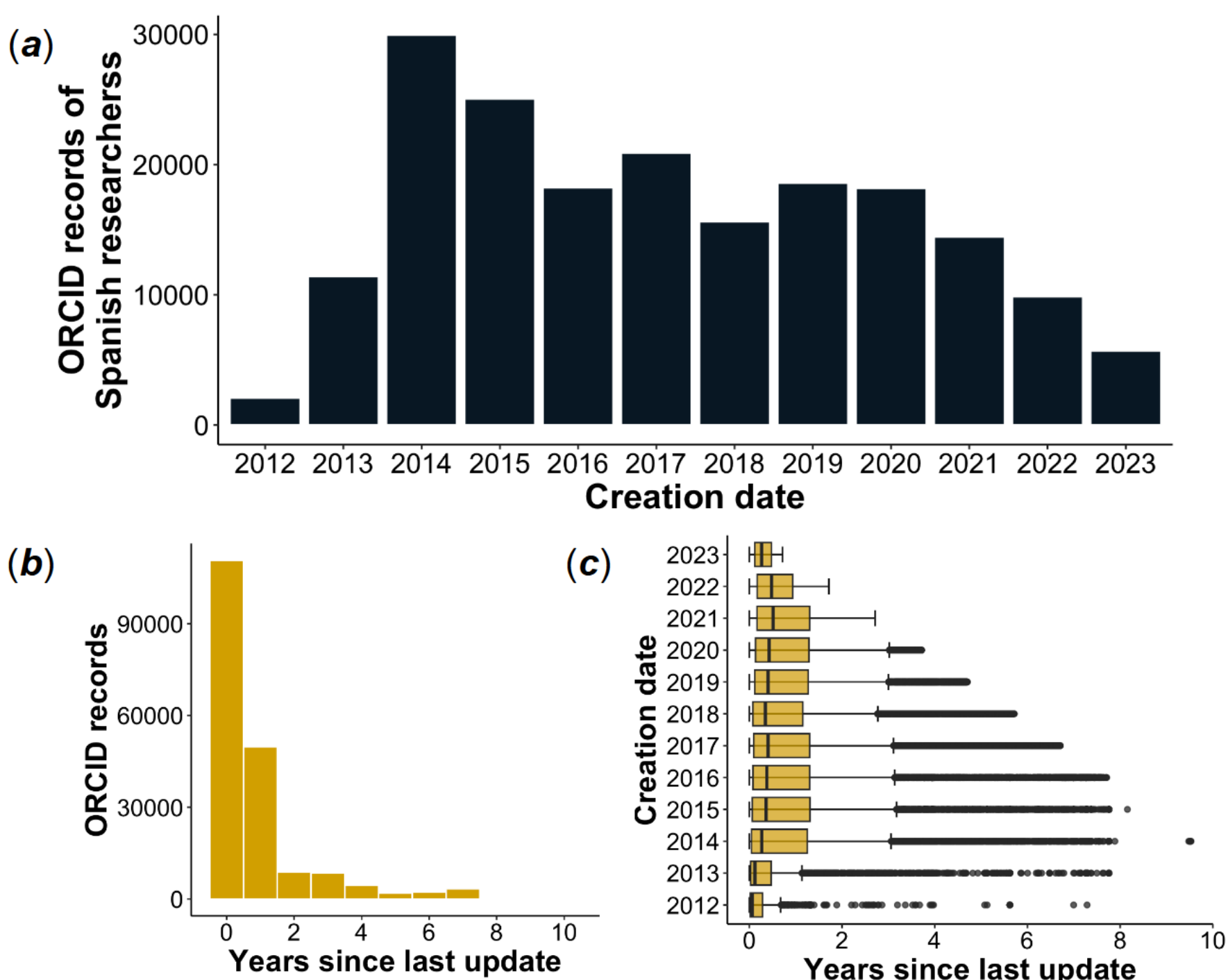
We used ORCID's public snapshot from September 2023 and OpenAlex from April 2024. The combined dataset included 226,511 records of Spanish researchers, filtered to 190,455 records marked as researchers. We analyzed these records using R, applying descriptive statistics and UpSet plots to explore metadata completeness and patterns of profile updates.



Results

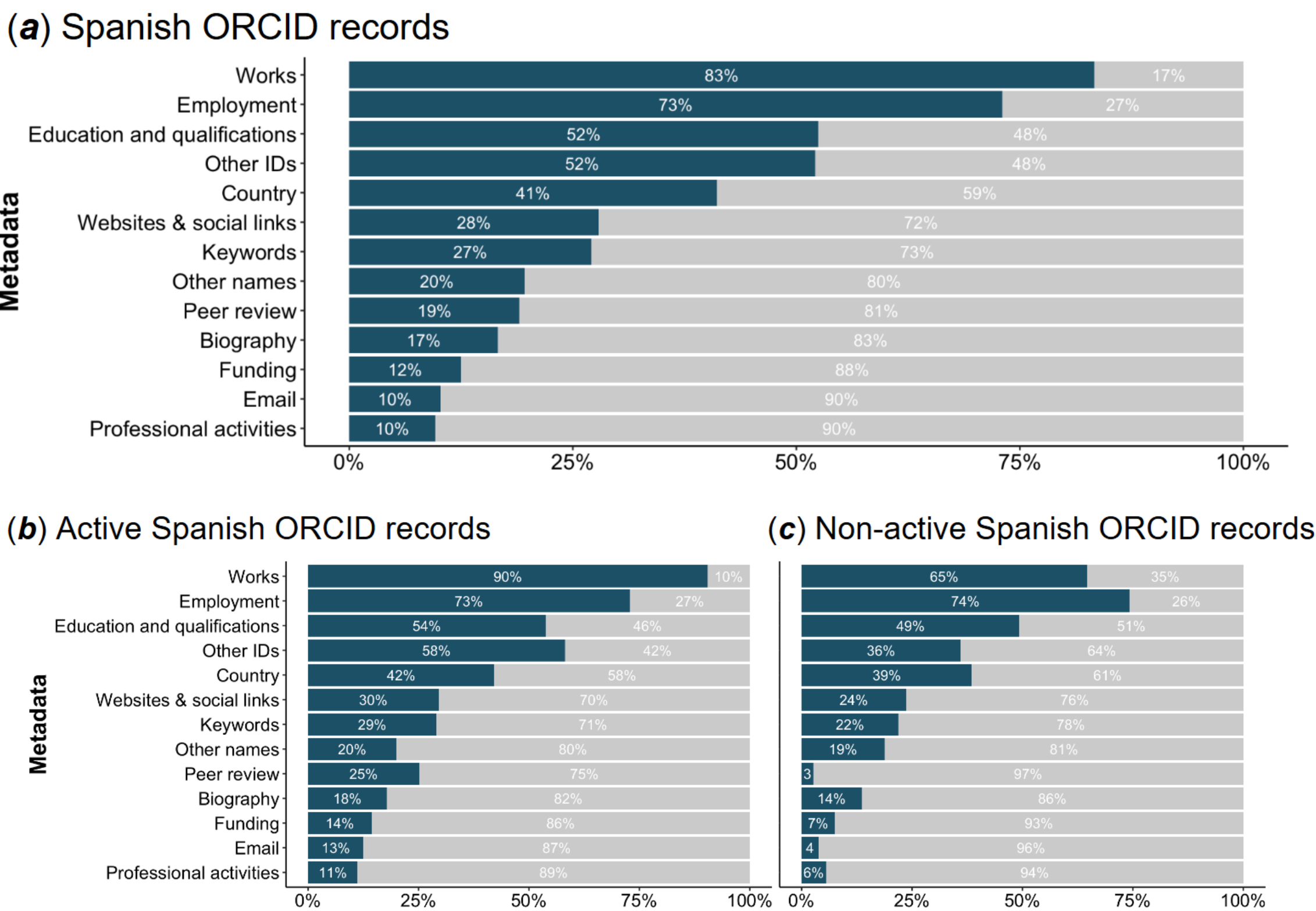
Activity of Spanish Researchers in ORCID

The analysis reveals that 73% of the 190,455 ORCID records for Spanish researchers are active. The data shows a peak in profile creation from 2014 to 2017, driven by institutional mandates. Following this peak, the number of new profiles has stabilized, suggesting that the majority of researchers have already registered.



Metadata Anlalysis

83% of records include information in the 'Works' section and 73% in the 'Employment' section. However, other fields, such as 'Keywords' and 'Peer review,' are less frequently filled, highlighting a need for more comprehensive metadata management.

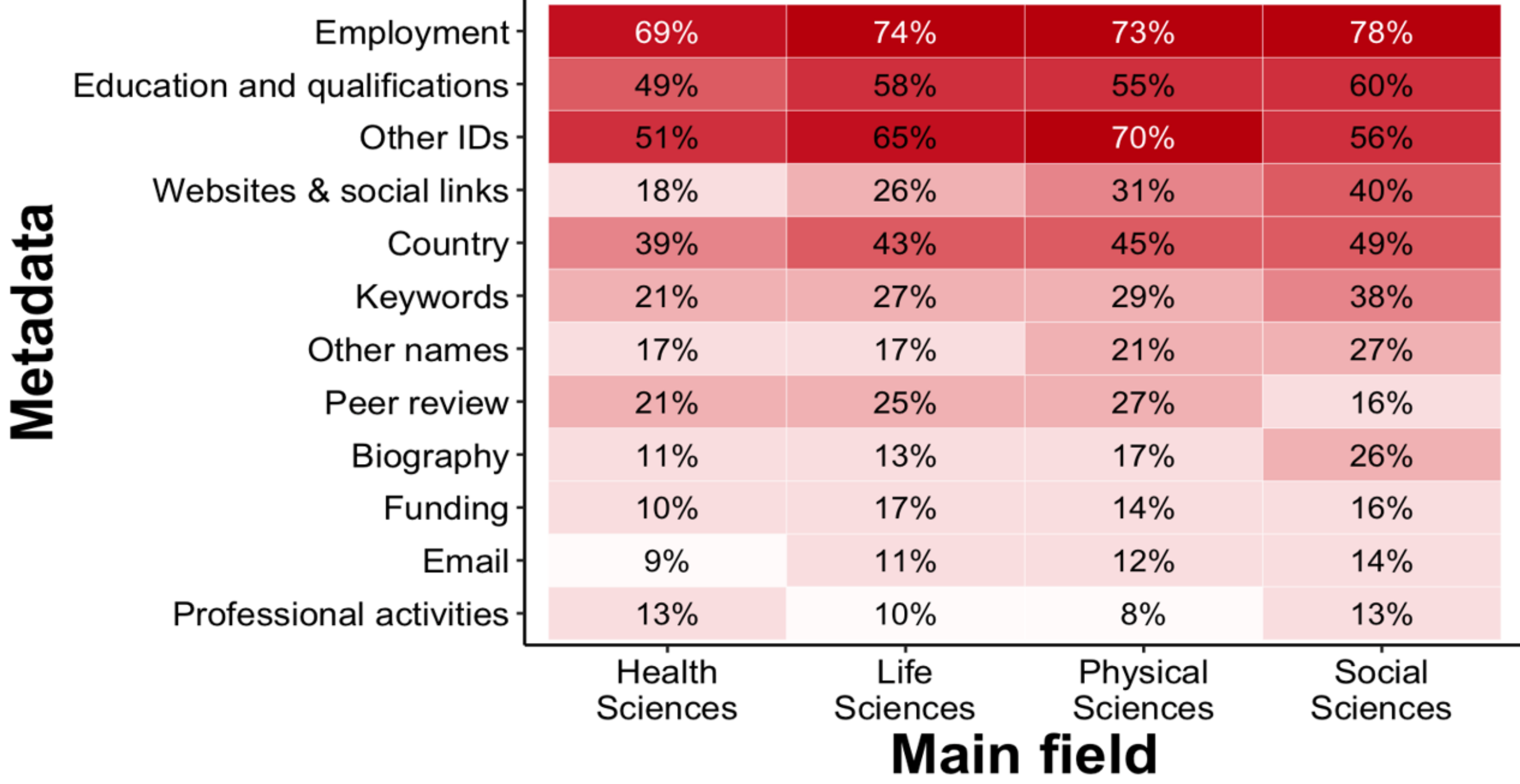


Discussion

The strong presence of active ORCID profiles among Spanish researchers reflects the tool's importance in managing academic identities. However, incomplete metadata sections present challenges for the use of ORCID in research evaluation. Enhancing interoperability and automating updates could improve metadata completeness, making ORCID a more reliable resource for tracking academic contributions and preventing authorship fraud.

Conclusion

ORCID is widely adopted by Spanish researchers, particularly in the fields of Physical and Health Sciences. However, variability in metadata completeness suggests that further efforts are needed to maximize ORCID's potential. Future studies should explore ORCID's role in tracking researcher mobility and academic trajectories



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