

Reporting Summary

Nature Portfolio wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Portfolio policies, see our [Editorial Policies](#) and the [Editorial Policy Checklist](#).

Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

n/a Confirmed

- ☐ ☒ The exact sample size (n) for each experimental group/condition, given as a discrete number and unit of measurement
- ☒ ☐ A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly
- ☐ ☒ The statistical test(s) used AND whether they are one- or two-sided
Only common tests should be described solely by name; describe more complex techniques in the Methods section.
- ☐ ☒ A description of all covariates tested
- ☐ ☒ A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons
- ☐ ☒ A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals)
- ☐ ☒ For null hypothesis testing, the test statistic (e.g. F , t , r) with confidence intervals, effect sizes, degrees of freedom and P value noted
Give P values as exact values whenever suitable.
- ☒ ☐ For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings
- ☒ ☐ For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes
- ☒ ☐ Estimates of effect sizes (e.g. Cohen's d , Pearson's r), indicating how they were calculated

Our web collection on [statistics for biologists](#) contains articles on many of the points above.

Software and code

Policy information about [availability of computer code](#)

Data collection

Custom Python codes for data gathering and preparation is available at https://github.com/SonyCSLParis/news_searches
 Versions:
 Python 3.8.10
 unidecode 1.3.4
 pytrends 4.8.0
 pandas 1.3.5
 numpy 1.21.0
 matplotlib 3.5.1

Data analysis

Custom Python codes for data analysis is available at https://github.com/SonyCSLParis/news_searches
 Versions:
 Python 3.9.7
 re 2.2.1
 numpy 1.20.3
 pymysql 1.0.2
 matplotlib 3.4.3
 json 2.0.9
 csv 1.0
 pandas 1.3.4
 seaborn 0.11.2
 scipy 1.7.1
 statsmodels.api 0.12.2
 matplotlib 3.4.3

scipy 1.7.1

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Portfolio [guidelines for submitting code & software](#) for further information.

Data

Policy information about [availability of data](#)

All manuscripts must include a [data availability statement](#). This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A description of any restrictions on data availability
- For clinical datasets or third party data, please ensure that the statement adheres to our [policy](#)

Google search engine data was generated by the Google Trends platform and is publicly available at <https://trends.google.com>. The raw data are not publicly available due to copyright restrictions. Derived data about news and about searches supporting the findings of this study is available at https://github.com/SonyCSLPais/news_searches

Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

- ☐ Life sciences ☒ Behavioural & social sciences ☐ Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see [nature.com/documents/nr-reporting-summary-flat.pdf](https://www.nature.com/documents/nr-reporting-summary-flat.pdf)

Behavioural & social sciences study design

All studies must disclose on these points even when the disclosure is negative.

Study description	The supply and demand of information is studied by comparing the daily time series for the numbers of news items produced in Italy and searches from Google Search engine. News and searches were filtered based on selected tokens/keywords to represent information supply and demand for specific subjects.
Research sample	News data covered most of the media production in Italy. Searches data were proportional to the totality of a query's volume in Italy.
Sampling strategy	No sampling strategy was designed. No sample-size calculation was performed, as data size was large.
Data collection	Italian news articles production was provided by AGCOM, the Italian Authority for Communications Guarantees. Google's searches data were collected using Google Trends platform's API.
Timing	Start: 6/10/2019. End: 31/08/2020.
Data exclusions	We pre-processed the data for duplicates and incomplete logs elimination. Particularly, we excluded items coming from Facebook and Twitter sources, since our purpose is to monitor direct production of news and usually social media copy contents created elsewhere. Also, an outlier was found in the pieces of news coming from a source called "Non siamo soli", that were reported just for few days, and were therefore excluded.
Non-participation	No information are available about dropping out of news sources (for news data) or Google Search Engine users (for searches data) but we believe this effect to be negligible in the observed time-frame over the size of the observed communities (basically, the ensemble of news outlets and Google users).
Randomization	Participants were not allocated into groups.

Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

Materials & experimental systems

n/a	Involvement in the study
☒	☐ Antibodies
☒	☐ Eukaryotic cell lines
☒	☐ Palaeontology and archaeology
☒	☐ Animals and other organisms
☒	☐ Human research participants
☒	☐ Clinical data
☒	☐ Dual use research of concern

Methods

n/a	Involvement in the study
☒	☐ ChIP-seq
☒	☐ Flow cytometry
☒	☐ MRI-based neuroimaging